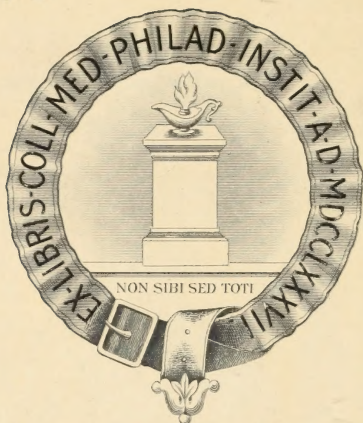






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Editor,  
DR. WALTER LINDLEY.

Associate Editors,  
DR. GEO. H. KRESS, DR. JOHN W. FLINN, DR. ELBERT WING,  
DR. H. BERT ELLIS, DR. GEO. L. COLE,  
and DR. W. JARVIS BARLOW


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Editor,  
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and DR. F. M. POTTENGER.

## GONORRHEA IN YOUNG WOMEN; RESEARCH WORK CONCLUSIONS IN VACCINE THERAPY.\*

BY JOHN C. HOLLISTER, M.D., SAN DIEGO, CAL.

Some two and one-half years ago a laboratory was established in Chicago by Dr. L. L. McArthur and myself for the purpose of ascertaining, if possible, the advantages in the use of vaccine therapy in general surgical work.

In addition to other lines of investigation, an attempt was made to collect sufficient data as to the value of such therapy in cases of gonorrhea, so that definite conclusions of value could be drawn. After considerable time devoted to the study of different isolated cases, it was found impossible to follow them for long enough periods and to control them accurately enough to give satisfactory data. \* Finally a unique opportunity for abundant clinical material offered itself at one of the State Reformatories and the research work which it has been possible to carry out in a series of some seventy cases of gonorrhea in young girls offers the excuse for presenting to you this paper. In giving this report, I quote very freely from a like report given by Dr.

Ruth Vail before the Chicago Medical Society. Dr. Vail made all of the bacteriological investigations. This report covers a period of thirteen months. Some forty of the patients were under close observation for a year, the other thirty were added during the year. After a careful physical and bacteriological examination of each case was made, the material was divided into six different groups, each group being as near like the others, relative to the extent of inflammation, degree of involvement of the different organs, and general condition of the individuals, as possible. To each one of the six groups was administered a definite line of therapy.

During the period of observation repeated examinations were made physically and bacteriologically. The material was under such complete control that when a reinfection did occur or any complication arose it could be immediately appreciated and duly recorded. The following six groups were made:

\*Read before the Southern California Medical Society, December 1, 1909, at Los Angeles, Cal.



Group I included those patients receiving the gonococcus vaccine alone.

Group II received the gonococcus vaccine plus "local treatment" twice a week. This local treatment consisted of thoroughly wiping away with dry cotton all secretions from the cervix and vaginal vault and then swabbing these parts with pure ichthyol.

Group III received the ichthyol treatment alone.

Group IV was treated daily with a low pressure normal salt douche, and once a day the discharge was thoroughly swabbed from the vaginal vault and external os with normal salt sponges.

To Group V was given anti-gonococcus serum.

Group VI received vaginal swabbing twice a week with a four per cent silver nitrate solution. The urethritis cases received injections of two per cent argyrol, as the case demanded.

In every case of the six groups the external genitals were washed three times a day with normal salt solution.

In Groups I and II a stock vaccine prepared in our private laboratory was employed. A uniform dosage of twenty-five million was administered once a week. The dosage of the anti-gonococcus serum was one cubic centimeter given to each patient three times a week. This serum was obtained from the Experimental Department of Park-Davis & Co.

The vaccine has shown an occasional slight local reaction. The serum has several times given a rather severe local reaction which cleared up in two or three days. No general reaction has been observed in any case. Each patient has had a pelvic examination every three to six weeks with occasional exceptions on account of age, menstruation, etc. Each of these examinations was made by at least two observers. At each examination smears were made from four regions, the vulva, vaginal vault, cervix and urethra. Gon-

ococci were identified in the smears from every patient. In many of the smears the gonococcus was the predominating or sole organism. It required a full hour's observation to find the typical organisms in many instances, on account of the multitude of other bacteria.

The following are the conclusions that the collected facts permit to be drawn:

*First:* Relative to the greatest per cent of cases in which the gonococci disappeared, it is found that the following order was observed:

1st, vaccine; 2nd, anti-gonococcus serum; 3rd, vaccine plus ichthyol, and ichthyol alone, rank the same; 4th, normal salt; 5th, silver nitrate.

*Second:* Relative to comparing the groups as to the largest number of cases in which the discharge disappears, The findings were as follows:

1st, ichthyol; 2nd, anti-gonococcus serum; 3rd, vaccine; 4th, vaccine plus ichthyol; 5th, normal salt; 6th, silver nitrate.

The disappearance of the discharge in the different classes does not run parallel with the disappearance of the gonococci in the same class.

The relation between the clearing up of the gonococci and the clearing up of the discharge is a fluctuating one in each class. In the vaccine class, for example, there is comparatively slight fluctuation in the curve portraying the presence or absence of the discharge from month to month. On the other hand, the curve showing the disappearance of the gonococci is very fluctuating. At one examination the diplococci have disappeared; at another they have reappeared. These two curves representing the disappearance of the gonococci and the discharge show a more parallel relation to each other in portraying the findings in the vulva and urethra than in the vaginal vault and the cervix. In the urethra the dis-

charge and the gonococci disappear almost simultaneously. This is approximately true in the vulva region, while the findings in the vaginal and cervical regions are very different. For example, at the end of the eighth month 100% showed a thick glairy discharge coming from the cervix, and in not one of these cases were gonococci demonstrable in smears taken at that time. In the following month 85% showed a cervical discharge, while in only 15% of these cases were gonococci found. In a considerable number of cases where the vulva and urethra were perfectly clean, both as to discharge and gonococci, gonococci were found in smears from the cervix.

*Third:* Investigation was made as to which region was most frequently involved when first examined—that is, vulva, vagina, cervix or urethra, and from which part the gonococci first disappeared. The results were as follows: When first examined the region showing gonococci in the greatest percentage of cases was:

1st, vulva; 2nd, cervix; 3rd, urethra; 4th, vagina.

This shows the small value the vaginal smear has for the diagnosis of gonorrhea. The order in which the gonococci cleared up was:

1st, vagina; 2nd, vulva; 3rd, urethra; 4th, cervix, the cervix thus showing a greater chronicity.

*Fourth:* It is found that the region showing most frequently the presence of a discharge on first examination and the order of disappearance is almost opposite to the finding of gonococci. This has a very important bearing upon the value of a discharge in the diagnosis of gonorrhea. The order of regions most frequently showing the discharge was as follows:

1st, vagina; 2nd, vulva; 3rd, urethra; 4th, cervix. While the order in which it cleared up was: 1st, urethra, 2nd, vulva; 3rd, cervix; 4th, vagina.

*Fifth:* This is in reference to the groups showing the greatest number of cases in which thickened tubes, cervical erosions and pelvic adhesions disappear. Such findings would be of far greater value at the end of two or three years than at the end of one year. Let it be said that it was with the greatest regret that the term of investigation could not be continued beyond the thirteen months. State politics and lack of appreciation of the actual practical local value of such work on the part of those in authority prevented, so that the work was necessarily dropped long before it should have been. At the end of these thirteen months the order of improvement was as follows: The groups showing the greatest improvement in case of *salpingitis* are:

1st, vaccine plus the ichthyol local treatment; 2nd, vaccine; 3rd, anti-gonococcus serum; 4th, ichthyol; 5th, normal salt; 6th, silver nitrate.

*Cervical erosions* disappear in a greater percentage of cases treated with vaccine plus ichthyol, while the vaccine alone, the serum and the ichthyol alone, give an equal percentage of cases showing disappearance of such erosions.

*Pelvic adhesions* show greatest improvement in:

1st, vaccine plus ichthyol; 2nd, serum; 3rd, vaccine alone; 4th, ichthyol alone; 5th, normal salt; 6th, silver nitrate.

Therefore the pelvic findings in general show the greater percentage of improvement in the cases treated with vaccine plus ichthyol. Vaccine alone and serum give approximately equal results. Ichthyol alone comes next in value, while silver nitrate comes last.

Conclusions:

1. In summarizing the improvement as to the disappearance of gonococci, the clearing up of discharge, and the improvement in pelvic findings, the vaccine and serum cases tally in the num-



ber of points of value; the vaccine alone and vaccine plus ichthylol give results of approximately equal value; while the silver nitrate comes last.

2. The advantages of the vaccine are:

(1) The volume of the dosage is very small, only one-fourth of that of the serum, hence there is practically never any local reaction. (A more or less minor point.)

(2) The interval between the injections is three times as long as the interval between the injections of the serum.

(3) The preparation of the vaccine is very much simpler than that of the

serum. It can be prepared in any well equipped laboratory, while the preparation of the serum necessitates the immunizing of animals. The greater frequency of the dosage of serum and its more difficult preparation make the serum treatment considerably more expensive than that of the vaccine.

3. The examination of smears made from the cervix, as well as from the vulva, vagina and urethra, is of vital importance in the diagnosis of gonorrhea in many cases.

4. The absence of a vulvo-vaginal discharge by no means rules out the diagnosis of gonorrhea.

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## TYPHOID CARRIERS.\*

BY I. R. BANCROFT, M.D., ASSISTANT HEALTH OFFICER OF THE CITY OF LOS ANGELES.

The problem of prevention of typhoid has been magnified during the last decade by the fact that it is now definitely certain that some persons pass the germs of typhoid from the urine and faeces indefinitely.

Before considering the condition of these so-called carriers, we will first consider the history of the germ while in the human body. The germ first obtains entry into the body by the mouth, and formerly it was thought that they found their way into the lower part of the alimentary tract and there invaded the tissue, especially the lymphoid cells of the small intestine, and only late in the disease were they thought to be in the blood. The newer theory, which has been elaborated by the Germans, is that the germs enter the blood stream from the alimentary tract during the incubation stage. Bacilli have been found in the blood during the incubation period, and very early in the incubation stage substances have been demonstrated which indicate that the germs are present. On the

other hand it is only after the first and second weeks of the disease that the germs appear in the faeces.

The germs do not, then, multiply in the intestines, but, at a very early stage, find their way through the wall of the alimentary canal into the lymph and thence into the blood. They are then carried to all organs of the body and in this way the gall bladder is infected, and, in some cases, becomes inflamed and discharges the germs into the intestines for a long time after the patient has recovered. These are the principal cases in which the disease is chronically carried, but it has also been demonstrated that bacilli are discharged from the urinary tract for long times after typhoid.

It is thus seen that any case of typhoid may distribute the germs after convalescence, and some for many years after recovery. We can divide the chronic carriers into faecal and urinary carriers. The faecal carriers are the most numerous and the German observers seem to have done the most

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\*Read before the California Health Association, Los Angeles, December 1, 1909.

thorough work to determine what proportion of cases of typhoid become chronic carriers. Various observers state the frequency of the chronic faecal carriers to be from 1 to 5 per cent. of those attacked. The most authoritative research that I can find on this subject is a series of 1700 cases compiled from three German laboratories in which 3 per cent. were found to be chronic carriers. So far as I could find out, the first case of this kind was in 1902. Since then many cases have been reported and the evidence is that certain cases carry the germ for a life time. The case of Typhoid Mary, of New York, reported by Dr. G. A. Sopher in 1906, is a sample of these cases. Mary was an Irish cook of forty, and in the summer of 1906 six persons developed typhoid in a family in which she had been employed for three weeks. Previous to this, it was shown that twenty-six cases had occurred in families in which she had worked during the previous five years, and mostly among the servants. She testified to having had a sickness which was probably a light case of typhoid, but for many years she had been free from all symptoms and absolutely healthy. In 1907, she was taken into custody by the New York Health Department. Bacilli were found in her stools and the widal was positive. She has been kept in charge since then, but has not submitted to an operation, which has been advised to remedy the condition.

Many similar cases are cited, one in Massachusetts in which germs were found fifty-two years after a case of typhoid, but as cases occur after contact with a case of typhoid and without any history of sickness, this class of evidence is not conclusive as to the length of time in which the disease can be carried.

Most of the cases have some symptoms of gall bladder trouble. Dean, of England, cites a case of this character

occurring in a physician who had had typhoid twenty-nine years before. Three months after convalescence he had an attack of biliary colic and a feeling of distress and fullness in the biliary region. Since then, he has had several attacks of biliary trouble every year. Germs were isolated from his faeces and no case of sickness could be traced to him. Another case, which had been isolated as a carrier in an insane asylum died a year after it had been proved to be a carrier. Autopsy of this case showed typhoid germs in the wall of the gall bladder, in the gall bladder itself, and also in a gall stone.

From these cases it seems to be definitely proved that the gall bladder is the principal focus for the development of the germs and from thence are discharged into the alimentary canal. It is also possible that the germs grow in the deeper folds of the small intestine, but this is not so well proved as yet. Gall itself is not a particularly good medium for the growth of the bacilli, but mixed with albumen is used as an artificial medium, so a diseased gall bladder, having an exudation of albumen, is an ideal place for the growth of the germs.

Urinary chronic carriers are apparently less frequent, but there can be no question but that the urine of the immediate post-typhoid patient is a serious menace as enormous numbers of germs are at times discharged, both during and after the active sickness. Rousig found one case whose urine showed the germs in enormous numbers three years after an attack. Young followed a case for two years which had had typhoid seven years previous, but this case had cystitis. Liebrau reports among others a case in which the germ was carried for nine years.

Although this carrier method of spreading the disease is to be considered, it must not be given too much prominence, as, if it were important, we would expect that the number of cases



would increase and that there would be recurrent cases in the same family. Such is not the case. In Los Angeles a majority of the cases are imported from the outside, and during the last three years I can find only one case recurring in the same house or family, and that was probably due to outside infection. Yet according to the average of faecal carriers, we should have had about one hundred chronic carriers at large in this city as a result of our typhoid for the last ten years. It is also reckoned that at any one time there are approximately as many carriers as one-half the annual number of cases. To guard against the spread of disease from this source, it would seem that some method of examining the

stools and urine would some time have to be adopted to make sure of the safety of the convalescent. This is especially important in the country and in institutions. In fact, in Scotland and in England, brilliant results have been obtained in quelling long-continued epidemics in institutions by hunting out these chronic carriers.

Once a carrier is detected, either isolation or absolute disinfection of the stools should be insured. Medical treatment of urinary carriers by large doses of urotropin has resulted favorably. For faecal carriers, opening and disinfection of the gall bladder has resulted favorably, but not always. One case is reported in which thotropin has cured after an unsuccessful operation.

## ACUTE ANTERIOR POLIOMYELITIS.\*

BY A. J. ROSENBERRY, M.D., JEROME, ARIZONA.

Orthopedists allege that one-third of the cases of deformity applying to them for treatment at institutions are the result of neglected or improperly treated cases of this disease.

Thirty years ago the nature of this disease was a complete mystery. Etiology, pathology, prognosis, all were unknown elements. I well remember when our professor of surgery in lecturing before the class on a case of this disease said, "A child goes to bed at night in its usual health, and awakes in the morning with a more or less complete paralysis of one or both lower extremities, without having been ill, no pain, no fever, no chill, nothing to indicate serious illness. It comes like a thief in the night and leaves a wreck of a promising child."

ETIOLOGY.—Age is an important factor. Of 566 cases, collected by Holt, 80% began during the first three years; 20% began during the first year; 38%

began during the second year; 22% during the third year; 15% during the fourth and fifth years; 5% began after the fifth year.

Boys are rather more frequently affected than girls. In the 566 cases of Holt 55% occurred in boys and 45% in girls.

Temperature has an important influence; the hot months of July, August and September producing the largest number; August being credited with more cases than any other one month.

This disease has been noted during the last 10 or 20 years to occur in epidemics. In 1843 the first epidemic was reported. It has since been noted in epidemic form in France, in Norway, and in this country. In New Hampshire or Vermont an epidemic in a small village was noted during the summer of 1908; also one in Virginia. Probably the most widespread epidemic so far noted, occurred in 1908 in the

\*Read before the Arizona Medical Association, May 19, 1909.

state of Wisconsin with the city of Eau Claire as the storm center. Eau Claire is a city of about 30,000 population. The county and city furnished 167 cases, with a mortality of 15.5% or 25 cases. This is a much higher mortality than has usually been ascribed to it.

Twenty-five fatal cases out of 167 cases is a high mortality—a higher mortality than pneumonia shows in that latitude. Dr. Manning, secretary of the West Wisconsin District Medical Society, collected 352 cases.

Wausau, a city of 15,000 population, furnished 42 cases with 2 deaths. Grand Rapids had about 40 cases, with 2 deaths. Minocqua, a village of 1500, had 10 or 12 cases with 1 death. There were many cases on farms in scattered dwellings, so that the idea of any strictly local condition is untenable.

Since writing the foregoing the April number of *The Wisconsin State Journal* has come to my hands, and by it I find that the epidemic was preceded by a small epidemic in 1907 at Galeville, Wis., where 22 cases occurred, and were reported by Dr. Jegi of that town. Two thousand cases occurred in New York City and vicinity in 1907. A small number of cases was reported in Oceana county. The 1908 epidemic in Wisconsin originated at Eau Claire, Wis. In January, 1 case. February, 0. March, 0. April, 0. May, 3. June, 4. July, 19. August, 44. September, 55. October, 21. November, 2. December, 1. The tract of country covered by this epidemic is about 100 miles square. The season was unusually hot and dry. The mean temperature for September was 6.43 degrees above the mean normal. In one ward of the city of Eau Claire without any previous cases having occurred, there were 10 cases, with 3 deaths, in one week. On July 16, a young man of 20 died suddenly with convulsions, no physician having

been called. Also a girl of seven died suddenly in convulsions supposed to have been due to measles. These cases were in the neighborhood of the sudden outbreak.

"Is this disease contagious?" is the all-important question.

In the Wisconsin epidemic there were 29 cases of direct exposure to infection. Twenty-five children became ill during or immediately after the occurrence of another case in same house. One case is reported following a similar one in the same house twenty years before. Another case occurred three years after a case in the same house. Among "Predisposing Causes" are mentioned, tonsilitis nine times, diphtheria three times, exposure to cold and rain twice, to overheating four times, intestinal intoxication and acute indigestion nine times.

**PATHOLOGY.**—Death from the disease, if it occurs, takes place in the late stages, so that initial pathological changes are difficult to ascertain.

The changes described by Charcot are the late changes, and since his observations, many observations at early stages have been made so that a quite complete description of the changes can now be given. In the earliest stage there is acute meningeal congestion and congestion of the gray matter of the cord supplied by the anterior spinal artery. The blood vessels are distended and some capillaries are ruptured, resulting in extravasation.

The perivascular spaces and the gray matter of the cord are filled with emigrating leucocytes, and the tissues are bathed in serum.

The leucocytes surround the cells and invade them. The neuroglia of the cord undergoes proliferation.

Bloodvessels, neuroglia, and ganglionic cells all share in the pathologic process. The changes in the cells are very marked. All varieties of degen-



eration may be seen. The cell may have a cloudy appearance and may be slightly swollen. The nucleus becomes faint, as also the outlines at this time.

Up to this point recovery is still possible. Gradual regeneration may still take place. If the process proceeds beyond this point restoration of function is impossible and permanent destruction is the result. Finally, contraction of the cellular elements takes place and the gray matter between the anterior and posterior horns is compressed and the trophic influence of the cord is cut off from the muscular structure—permanent atrophy results. The dentrites associating the cells in different levels the cord undergo atrophy and loss of function is rendered more complete.

Chorcat taught that the degenerative process was strictly limited to the cells, and that the interstitial tissues were not affected.

It must be remembered that the structures supplied by the anterior spinal artery are all involved in different degrees.

The cases in which there is no evidence of inflammatory nature are probably due to an embolism or thrombosis of a spinal vessel.

**SYMPTOMS.**—In the great majority of cases the attack is ushered in suddenly by a rise of temperature with headache, vomiting and pain, some times convulsions.

In mild cases there may be only a slight rise of temperature with no other symptoms except malaise.

The paralysis comes on in from three to five or seven days from the onset.

It may be a single upper or a single lower extremity.

It may be a paraplegia or a hemiplegia. The limbs and trunk may be involved. The paralysis is most complete and extensive at its first ap-

pearance. Improvement begins within either three to five days after its beginning of attack.

**DIAGNOSIS.**—Diagnosis is not difficult after the appearance of the paralysis. From rheumatism it is differentiated by an absence of localization such as would be seen in rheumatism, with a temperature of 103 or 104. There is an absence of profuse sweats seen in rheumatism; tenderness is generalized.

Infantile paralysis has been for one or two days mistaken for hip disease. Observation and care will correct such an error. In fact the diagnosis is unmistakable after paralysis is manifest.

**PROGNOSIS.**—Is always grave, with a mortality of 15% and with the absolute certainty of more or less deformity. A careful prognosis is always to be made. It is said that muscles which respond to faradism within three weeks will eventually recover, while those which do not so respond will always be impaired to a greater or less degree.

**TREATMENT.**—The treatment in the acute stage is symptomatic. Calomel followed by salicylates and other eliminants, rest in bed with regulation of diet are all important. Sponge with water or alcohol is useful in reducing temperature. At the end of ten days the febrifuge treatment should be supplanted by electricity. Iodides and massage as soon as every evidence of inflammatory action has disappeared. Strychnia in one-hundredth to one hundred and fifty grains may be carefully administered. A mild faradic current may be used daily. Most important of all at this time is the prevention of deformity by application of braces to legs and especially to ankle joints, to prevent distortion.

In conclusion I wish to emphasize the gravity of this affection. In frequency of occurrence and in fatality it has been greatly underestimated. The deformity so frequently left behind is

little less destructive to life, usefulness, and happiness than death itself. To see a beloved child humiliated by loss of control of its members and handi-

capped in the battle of life is indeed distressing.

I thank you, gentlemen, for your attention.

## PREVENTION OF COMMUNICABLE DISEASES.\*

BY J. I. CLARK, M.D., SANTA ANA, CALIFORNIA.

Communicable diseases is a very broad subject and one which might be said to include nearly every known disease, for, with few exceptions, all diseases are communicated from one person to another or from lower animals to the human family, directly or indirectly.

All contagious and infectious diseases are preventable, and the prevention of disease today is causing more study, research and experimental work than any other branch of medicine, and rightly it should, in order to keep the science of medicine abreast of the times and apace with advancement of other sciences.

We are living in an age now where all branches of science are dealing with cause and effect; this is particularly true with medicine. When we see a patient with a high fever, a pain or hemorrhage we do not stop with these symptoms and administer a remedy for them alone, but go back of those symptoms and determine the cause. More especially is this true in dealing with communicable diseases, for always if we can determine the cause of an epidemic and remove that cause, we have won the first battle in our warfare against them.

I shall not attempt to enumerate all of the communicable diseases nor discuss but few of them, which to me are the most important at the present time.

Tuberculosis—the one disease which I think you all will agree stands at the head of any classification of communicable diseases—our worst enemy and

the one at this time that requires our every effort to reduce its mortality rate.

Tuberculosis, with its yet not entirely satisfactory treatment, renders it the more dangerous, and our best weapon is prevention. This can be accomplished only by an early diagnosis, reports to health departments, isolation as near as possible, and last, but not least, as in all such diseases, *education*, not only of the victim of tuberculosis so he will not spread infection by discharges from the mouth, nose, bowels or ulcers, but by education of people in general along sanitary and hygienic lines. Our anti-tuberculosis societies are doing a grand work along this line and it is surprising the increasing interest that is being taken by the general public since the campaign of education has been inaugurated by these societies, and even at this early date our death rate from tuberculosis is diminishing.

Smallpox—which has depopulated countries and cities in the past—can be almost, if not entirely, prevented by vaccination and sanitation. I mention vaccination before sanitation here because I deem it of more importance in fighting the disease when it occurs, as well as a preventive measure. While we do not have those severe epidemics that occurred before the discovery of vaccination, yet there is an ever-increasing danger from it. It is a deplorable fact that, knowing what vaccination has done, yet some of our physicians are either opposed to vaccination or only luke-warm in its advocacy. Many say

\*Read before the annual meeting of the Southern California Health Association, Los Angeles, December 1, 1909.



they would rather have the smallpox of today—which is so modified by vaccination of our ancestors—than vaccination. Herein lies the danger, and should we allow a generation or two to grow up without vaccination we will have smallpox in as virulent a form as before the discovery of vaccination.

**Typhoid Fever.**—A disease which is only acquired by communication of bacilli from one person to another through food or drink—can be prevented by thorough disinfection of all disjuncta from patients—not only stools and urine, but discharges from mouth and nose; enforcement of most rigid sanitary measures, in disposal of sewage, use of pure water, pure milk and pure food of all kinds.

**Syphilis and Gonorrhœa.**—Both communicable diseases, both spreading with great rapidity throughout this country, without any care being taken by legislation, education or health authorities to check them.

I mention these two diseases before taking up some of the other contagious diseases because I think, under present conditions, which are those of no protection, they demand more attention than others over which we have control to a great extent.

To quote from recent literature sent out by the State Society for Study and Prevention of Syphilis and Gonorrhœa, and these statistics have been collected from authentic sources:

Gonorrhœa, which is usually regarded by its victim as of no more importance than a common cold, is the greatest social danger of the age. It is estimated by competent and conservative authority that in Europe 75 to 85 per cent. of the adult male population contract gonorrhœa and 10 to 15 per cent. have syphilis.

In this country it is conceded that in our large centers of civilization from 60 to 80 per cent. of the married men have latent gonorrhœa. Gonorrhœa is

the most common cause of inflammatory affections peculiar to women which ruin her health, extinguish her hopes of motherhood and condemn her to a life-long invalidism or the sacrifice of her reproductive organs to save her life.

Gonorrhœa is the direct cause of from 50 to 90 per cent. of all abdominal operations performed upon women. At least 50 per cent. of the sterility among men and women is due to gonorrhœa and syphilis. More miscarriages and abortions occur as a result of syphilis and gonorrhœa than from all other known causes.

It has been computed that hereditary syphilis kills every year in France 20,000 children. With such statistics as these before us it is imperative for us to awaken to the importance of the spread of these two diseases and adopt some measures for their control and prevention. Should there be one per cent. of the number of deaths from scarlet fever, diphtheria or any other infectious or contagious disease as from these two diseases, there would be the most rigid laws enforced for their control and prevention.

Both of these diseases are transmissible throughout their course, not only through sexual intercourse, but also by means of the discharge from lesions upon the fingers, the body, the lips, by means of clothing, pipes, cigarettes and other utensils of daily use. The development of preventive medicine, the discovery of the germs of syphilis and gonorrhœa plainly marking them as infectious diseases contracted either through sexual or non-sexual contact, and the constant recognition of new and grave forms of disease whose origin can be traced to venereal infection, make it imperative that scientific men should break the ice of professional reserve which has for centuries kept these, the greatest plagues of humanity, in darkness and mystery most favorable for their development and dissemination. A

false shame and a deeply-rooted prejudice have prevented the public from receiving the information and protection which is its due against these two diseases, which not only undermine the individual, but strike at the root of the family, the nation and the race.

How shall we prevent the communication of these two diseases, or at least check their spread and reduce their mortality rates?

First—By education; by instructing every man and woman in regard to the existence, prevalence and dangers of them.

To encourage, by means of publicity, the honest and open discussion of these diseases as questions of individual and public safety.

By instruction at the proper age of the youth of both sexes in the social and physical causes and effects of syphilis and gonorrhœa as well as the best known methods of their prevention and cure.

Lastly—By the enactment of laws placing these diseases in the same category as other infectious diseases, and thereby bring the public to a realization of the fact that in view of the disastrous consequences of these diseases the burden of professional *secrecy* should *not* be laid upon the physician.

Scarlet Fever, Diphtheria, Whooping Cough and Measles.—The four most common communicable diseases we have to care for; and it is these that give us as health officers more trouble than the more grave yet more uncommon diseases.

Scarlet Fever.—The first and most important step in its prevention, or, rather, control, is early reports from the attending physician even of the mildest case; for here, as in smallpox, it is in the mild case, that is passed over by the physician and allowed to go without quarantine, that the danger lies. Our health laws or city ordinances should prescribe a quarantine of not

less than six weeks for any case of scarlet fever, and longer if desquamation is not complete.

Diphtheria.—The use early and in large doses, not only on the patient, but also on all exposed, will effectively prevent an epidemic. While we have some opposition from certain classes as to the use of antitoxin, I think we as health officers should insist upon its being administered to the exposed cases as firmly as we do upon vaccination of those exposed to smallpox, and since some of our producers of biologics, especially the Cutter Laboratory, have made an especially low price on antitoxin to boards of health for use where the poorer families are unable to stand the expense of large doses themselves, we should see that it is used.

Whooping Cough.—A disease looked upon by most people without fear, yet one of the worst and hardest to control of the contagious diseases, and one which should be as rigidly quarantined as scarlet fever and diphtheria, for its mortality rate under present conditions is far higher than both together.

Measles.—Very contagious; death rate high; preventable. Should be as thoroughly looked after by health officers as any other contagious disease.

To sum up the important points in the prevention of any communicable disease—

First—Education of the general public along sanitary and hygienic lines, especially along those of pure water, pure milk and proper sewage disposal. The more interest we can get our people to take along these lines the less typhoid fever, diphtheria, etc., we will have. The public press is one of our greatest educators and can aid or retard our work very much, but my experience has been that most newspapers are only too willing to aid in any movement that looks toward the betterment of sanitary conditions in any city. Es-



pecially is this true in our smaller cities and villages, where the newspapers are read by a much larger majority in proportion than in the large cities.

Second—Co-operation of physicians in reporting all such diseases to the health authorities and assisting them in maintaining isolation and quarantine.

Third—Legislation; the enactment of national, state and municipal laws providing for the recognition and authority which health departments should have; uniform and stringent regulations for the control of all health and sanitary matters; appropriations of money at least equal to that of the departments which care for our live stock, fruit and grain. We cannot prevent these diseases without the expenditure of money, but if we value the lives of our people as highly as our horses and cattle, it is much cheaper to prevent them than to allow them to go unchecked.

Fourth—Efficient and well-paid health officers. You cannot get the first without the latter. Too often the health officer is paid the least salary of anyone on the city payroll, the street cleaner not excepted.

We as health officers have a great responsibility and should be given the recognition and salary our positions are entitled to.

No health officer can perform his duty without making enemies, but if we are to prevent the spread of these diseases we must be firm in enforcing those regulations we have.

And now in conclusion allow me once more to emphasize the importance of our duty in carefully guarding the first case or cases of these diseases that comes to our notice, for it is nearly always a lack of this first thoroughness that allows an epidemic to follow. Had the lantern the cow kicked over been extinguished Chicago would not have burned.

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## DIGITALIS.\*

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BY W. I. LINN, M.D., PRESCOTT, ARIZONA.

Digitalis or foxglove, a genus of biennial and perennial plants of the natural order Scrophulariaceae. The common or purple foxglove, *digitalis purpurea*, is common in dry, hilly and rocky places and by roadsides in various parts of Europe. It is also extensively cultivated in different places. "It reaches its greatest physical perfection in our north-western coast states, where it is extensively naturalized along roadsides, attaining a height of ten and even twelve feet," its usual height being from two and one-half to six feet, usually flowering in July of its second year's growth and seeds ripening in August. The plant may be propagated

by off-sets from the roots, but are best raised from the seed. It has been known by a variety of popular names: as bloody-fingers; dead men's bells; ladies' thimbles; elves' gloves; dog's fingers, etc. The German name fingerhut (thimble) suggested to Fuchs, in 1542, the employment of the Latin adjective *digitalis* as a designation for the plant. The earliest known descriptions of the plant are those given by Fuchs and Tragus about the middle of the 16th century, but its virtues were doubtless known to herbalists at a much remoter period. A writer prior to the middle of the 17th century tells us that the Italians, called by them *Aralda*,

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\*Read before the Arizona Medical Association, May 19, 1909.

had proverbs concerning it. That it "salveth all sores," "is available for the King's Evil," "effectual against the Falling Sickness, that divers have been cured thereby,"

Digitalis was first brought prominently under the notice of the medical profession in 1785 by Dr. W. Withering, who gave details of over two hundred cases, chiefly dropsical, in which it had been used. He had some ten years previously become somewhat acquainted with it as an ingredient in a family receipt for the cure of dropsy; began to use it as a diuretic. At first he gave it in sufficient quantities to produce nausea, but learned from his experience that its diuretic effect did not depend upon its exciting nausea or vomiting, and that often the urinary discharge was checked when the dose was urged so as to occasion sickness. He also observed that when it produced purging, it was inefficacious unless combined with small doses of opium to restrain its action upon the bowels. He seldom found it to succeed in men of great natural strength, tense fiber, warm skin, and florid complexion, or in those with a tight and cordy pulse. He recommended it in "every form of dropsy, except the encysted," and was of the opinion that it "might be made subservient to the cure of diseases unconnected with dropsy, and that its power over the motions of the heart, to a degree unobserved in any other medicine, might be turned to good account by the physicians," observations which the experiences of physicians for the century and a quarter since have fully confirmed.

The leaves are the part of the plant generally used as medicine. They are gathered in the second year's growth, during the blooming period. They are from three to ten inches long; ovate or ovate oblong, narrowed into a petiole; crenate; dull green, densely and finely pubescent; paler and reticulated beneath; mid rib at the base broad; odor slight, somewhat tea-like; taste bitter

and nauseous. When gathered are usually stripped of the petiole and thicker part of the mid-rib; dried in the sun or ovens; done up in bales, or pressed into hard cakes or blocks. Some of the finely selected leaves are powdered and put up in small sealed packages for administering in the powdered form.

The active constituents of digitalis are crystalline glucosides, and with them occur resin, tannin, gum, pectin, a little sugar and digitalic acid. Among the substances so far isolated are digitalin, digitalein, digitoxin, digitin, digitonin, some of which are simply compounds of the others, none of which has the same physiological or therapeutical action as the crude drug. Digitalin, digitalein and digitoxin represent the cardiac stimulating action of the drug, while digitonin appears to exert a contrary effect, digitin seeming devoid of any physiological or therapeutical effect.

Action: Digitalis is readily absorbed by the skin and has some local sedative effect when used externally. Although it has a bitter taste, it has no tonic action on the stomach, but often disorders the digestion, and may cause nausea, vomiting or diarrhoea when given in too large doses, or too long continued. Its active principles readily diffuse into the blood, reducing the rate of the heart's action by lengthening the diastole, thus allowing its cavities to receive more blood. At the same time that it increases the inhibition it stimulates the motor ganglia and increases the force of the contraction. Moreover, it causes the contraction of the arterioles throughout the body, and thus combines this effect with the preceding and raises the arterial tension.

Francois Frank, from a series of experiments with digitalis and digitalin, found that in mammifera, it slows the beat of the accelerated heart; it regulates the arrhythmical heart, and greatly augments the systolic power and the diastolic resistance. He holds that these effects are developed equally on the two



sides of the heart, contrary to the views of Germain Lee, that the action is greater on the right heart, and contrary to the German physiologists that the action is manifested on the left heart.

In a toxic dose digitalis produces first an excessive slowing of the heart-movement, but a special arhythmic beat, manifested by a dicrotic pulse. Afterward the heart accelerates itself, becoming irregular: the contractions are precipitated by a sort of semitetanic ventricular movement interrupted by prolonged intermissions, finally causing death in systole, in both cold and warm blooded animals.

The action of digitalis upon the circulation may be summed up as being that of a vascular stimulant, raising arterial pressure, lowering abnormal temperature, and steadying the heart. Upon the brain and spinal cord it produces little direct effect. The reflex action of the spinal cord is reduced by large doses, and there is stimulation of the pneumogastric and vasomotor nerves. It has almost no effect upon the respiration unless the amount be poisonous, when respiration is slowed. Upon the normal temperature it has little or no effect in medicinal doses. In poisonous doses it lowers the temperature. In fever it seems to reduce the temperature slightly, but can rarely be used for any antipyretic effect, as a "high temperature prevents digitalis from acting on the circulatory system. This is an important point to be remembered in its therapeutic use." (Hare). The general action upon muscular tissue is to lessen contractility, causing lassitude and want of vigor. The sexual functions are depressed, but has some effect upon the uterus, causing it to contract. The effect upon the kidneys is peculiar. The increase of arterial tension in the glomeruli accompanying the general effect on the circulation is assisted by a special action, by which the venal arteries are dilated, thus acting as a true

diuretic; while the excretion of urea is at first increased, it subsequently diminishes. The greatest effect as a diuretic is obtained in diseased conditions accompanied by oedema and low arterial pressure.

Poisoning: The slow, full pulse, followed by the hobbling, dicrotic, shuttle-like pulse-beat, and the tumultuous cardiac beat against the chest wall, affords a combination of symptoms characteristic of the over-action of digitalis. The pulse may be full and slow when the patient is lying down, but at once becomes irregular on his sitting up. Often when the patient has received too much the finger can scarcely note any pulse at the wrist, while the ear placed over the heart shows it to be beating wildly, as though it would break out of the chest. For this reason it is important that the weak pulse at the wrist be not taken as the only guide as to the state of the patient, but the physician should always auscult the praecordium before reaching an opinion as to the action of digitalis. When an overdose has been taken, tannin or infusion of tea or coffee should be given at once, the stomach washed out and stimulants given. Saponin is the physiological antagonist, according to Bartholow; aconite, according to Hare. *The patient should keep the recumbent position*; hot drinks, external heat, particularly about the abdomen, and inhalation of spirits of ammonia should be resorted to. In some cases a cumulative action occurs which consists in the failure of the drug to appreciably influence the circulation for some days, only to exert all its power suddenly and produce symptoms of poisoning. It has been observed that as long as the functions of the kidneys are maintained the symptoms of accumulation are not apt to arise, except where the removal of ascites or dropsy takes place by tapping after the drug has been taken for some time.

Preparations: The official preparations are the powdered leaves given in doses of 0.03 to 0.2 gm. (grss. to iij), and the fluid extract in the same number of minims: the extract, dose 0.2 to 0.6 gm. (gr. 1-5 to ij); the tincture dose 0.03 to 2.0 c.c. (m v to xxx) and the one-and-one-half per cent. infusion, dose 4 to 15 c.c. (fl oz. j to iv).

"The varying solubility of the active principles in the vehicles used explains the difference of therapeutical effect. Digitalin is insoluble in water, but soluble in alcohol; digitoxin is insoluble in water, sparingly soluble in alcohol; digitalien is soluble in ether; digitonin is soluble in water, sparingly in alcohol." Hence the tincture and alcoholic extracts would contain a greater proportion of digitalin and digitoxin, the ingredients which stimulate the heart; while the infusion would contain a much greater proportion of digitonin, which would account for what has generally been observed, viz, that the infusion is the most active diuretic preparation.

THERAPY.—It has been stated "that the indications for digitalis being frequency, irregularity, weakness of pulse-beat, and dropsy, it can be said in a general way that any other condition form a contraindication." It is often slow in producing its effect either on the heart or kidneys, often 36 to 48 hours before showing appreciable effect, but when produced continuing for several days after its withdrawal. Hence when administered should be carefully and cautiously watched.

Locally digitalis is employed combined with moisture and heat in joint inflammations, acting as sedative and possibly reducing the calibre of the vessels. Part is absorbed and produces a diuretic effect, especially when applied hot over the loins. A tablespoonful or more of the tincture sprinkled on a cloth wrung out of hot water, or a poultice containing zj of the leaves, applied

to the lumbar region, may be used in disuria or suppression of the urine. Bronchial congestion due to heart disease may also be relieved by local applications.

Internally it is chiefly prescribed as a heart tonic in cases of failure of circulation due to the feebleness of the heart's action. It should not be used in valvular disease as long as compensating hypertrophy is keeping up the work of the heart; but when this fails and dilatation is commencing, digitalis will not only slow and steady the heart, but improve the nutrition of the heart walls by increasing the pressure in the coronary arteries and allowing them a longer time in which to be filled. In heart affections where there is absence of dropsy and abundance of urine being passed, it is seldom demanded. In mitral stenosis it is used to allow the left auricle a longer time to empty into the ventricle; also in tri-cuspid regurgitation with dilated right ventricle. It is not to be used in aortic stenosis, as a rule, but sometimes may be required for a time to regulate the rhythm of the heart, or to relieve dropsy. Brunton counsels that in disease of heart when there is excessive constriction of the blood vessels, if digitalis be given, it should be in combination with nitrous ether. It would seem that in such conditions the infusion containing the greater proportion of digitonin would be the preferable preparation. Sir Richard Powell says "the commonest mistake that one observes in the use of digitalis is that too large a dose is prescribed at first, which tends to premature arterial contraction and cumulative effects." He recommends not more than m.x. every four hours or m.xv every eight hours as sufficient. Thus taken, the patient being at rest, it generally takes about three days before the pulse is under control and the urine begins to increase. When its decided results are thus gradually developed, the use of the drug

should be steadily continued in doses calculated to maintain its effect. But "when marked slowing of the pulse to 60 or under, or a fall in the quantity of urine occurs, the dose should be lessened or stopped, owing to the danger of toxic manifestations, which reveal themselves in the form of nausea and

vomiting, weakness and irregularity of the pulse, or a double beat of the heart to one of the pulse." It is in mitral disease, particularly when dropsy and dyspnoea are present, that digitalis induces the most brilliant results, relieving the dyspnoea, producing free diuresis, and lessening the dropsy.

## RETROPERITONEAL HEMORRHAGE—REPORT OF AN UNUSUAL CASE.\*

BY HENRY H. LISSNER, M.D., LOS ANGELES.

Case of Mr. D. F., age 30, occupation solicitor.

*Family History.* No bearing on the case.

*Previous Illnesses.* Ordinary diseases of childhood. No typhoid, rheumatism, malaria, pneumonia. Eighteen months previous to the time I saw him he was operated for tumor of the right testicle, which was removed. Nature of tumor, unknown to patient. He has been well and working up to the time of present trouble.

*Present Illness.* In the evening of March 19, 1909, he ate three-fourths of a pound of raisins. He felt no particular discomfort until 3 a.m. of the following morning when he was awakened by severe cramps in the abdomen, with which he suffered during the entire night. On the morning of the same day I saw him and his condition was as follows:

Temperature normal, pulse 72, cramps present in abdomen. Pain not localized, but generally distributed, constant, with occasional exacerbations. Pressure with both hands over the abdomen relieves pain somewhat. Tympany present all over abdomen, obliterating liver dullness; no palpable tumor; no localized tenderness over McBurney's point; slight rigidity over abdominal muscles, below umbilicus, more on left than right side. Bowels constipated; or-

dered hot water bag to abdomen; calomel and salts; patient obtained relief from acute pains and was comfortable after having had several copious bowel movements.

On March 23 he returned to office and told me that while he had no acute pains, there was still a dull aching in the abdomen which "Feels like a toothache, and is relieved by warm applications and pressure."

Examination of abdomen reveals no pain on pressure over gall bladder, liver, McBurney's point not tender, no pain on palpating for kidneys, which could not be felt because of muscular resistance. Abdomen tympanitic and no tumor palpable. Temperature and pulse normal. He has been at work as canvasser since first I saw him.

On Saturday, 27th inst., he returns to office and tells me that he has been on his feet constantly since his last visit, and that the pain is still present. On examining him, I found marked rigidity over lower abdomen, i. e., between pubes and umbilicus; resistance much greater on left than on right side. Palpation over left iliac fossae reveals mass of some kind, which cannot be definitely make out because of muscular spasm. Mass is dome-shaped as outlined by percussion and extends from one inch below umbilicus, and to the left of the median line toward pubes

\*Reported to the Los Angeles Medical Symposium Society, November 23, 1909.



and iliac fossae. All the rest of abdominal surface is decidedly tympanitic. Bowels constipated. Does not pass flatus. Catheterization has no influence on mass. Examination with sigmoidoscope done by Dr. Dillingham, shows no obstruction in the lumen of the bowels, although it is impossible to pass instrument beyond the rectum proper into sigmoid, because of pain. The bowel beyond the instrument could be dilated by blowing air into its lumen. Bowel shows marked tendency to bleed from simple contact of the instrument. Ecchymotic spots noticed on the umbilicus, for the first time. Temperature 98.4, pulse 80.

March 29, 1909. Pain during night very severe. No nausea or vomiting at any time during illness. Abdominal findings same as previously described. Patient was sent to hospital in a.m. On the evening of same day temperature was 101, pulse 120, and expression of patient was anxious. Pain more paroxysmal in character, and localized to region two inches in diameter with umbilicus as center. Dr. Beckett was called in consultation and advised operation for probable appendicitis; this was accordingly done that same evening.

A median incision was made, and immediately upon opening the peritoneum, pure blood from the abdominal cavity presented at the wound. The folds of intestine at the umbilicus show beginning peritoneal inflammation; intestines are matted together by serous exudate and bleed very freely when separated. The appendix is found bound and kinked in these adhesions, which are broken and appendix removed. Beneath the intestines and mesentery on each side of the vertebral column, a tumor mass presents, which is doughy to the touch, does not fluctuate, and is retroperitoneal. Tracing the origin of the greatest quantity of blood to the pelvis, a roughened, irregular break in the peritoneum is discovered at the brim of

the true pelvis. The hand introduced into this opening goes into a cavity filled with partly organized blood clot, and in working upward to the mass above described it is easily removed, and proves to be organized blood clot; one clot on each side of spinal column connected by a lamina of fibrin. Each clot is about the size of a foetal head. After removing these clots and the other less organized blood, two bleeding points present, one an artery, small in caliber, the other seems to be more of an oozing. The location of the vessel or origin of the hemorrhage was not identified because at this stage of the operation the condition of the patient did not warrant any further proceedings or manipulation. The vessel was tied and the oozing controlled by hot packs soaked in adrenalin solution. A whitish mass was seen just below the bleeding vessel almost on a level with the umbilicus, or a little higher, resembling somewhat the head of the pancreas. The wound was closed as quickly as possible and the patient returned to bed, where hypodermoclysis of salt solution and adrenalin were given him in order to revive him. This was successful and at the end of two weeks patient was allowed to return to his home and was instructed to remain in bed. Liquid diet was prescribed. On the Saturday following his return home patient arose and walked about the house, and feeling hungry ate liberally of beefsteak and German fried potatoes. Sunday morning at 1 o'clock patient was again attacked by violent pains in abdomen. Upon arrival at his bedside the following clinical picture presented: Patient greatly shocked, his expression anxious, pupils widely dilated, mouth dry, complains of great thirst. Respiration very rapid, alae nasi and extraordinary muscles of respiration very active. Profuse perspiration, heart regular, small thready pulse, easily compressible. Temperature 98.2. Abdomen tender over umbilicus, abdominal mus-

cles rigid. Tympany over right side below umbilicus; left side dull; palpation reveals expansive pulsating mass dome-shaped, with highest elevation above umbilicus about one-half inch. Patient was given hypodermic injection of one-fourth grain morphine. The following morning Dr. Anton was called in consultation, and decided that further operative procedure would be futile. Patient was removed from his home to the Kaspars Cohn Hospital, where he gradually passed through the various stages of peritonitis and continuously had his pulsating mass in the left side which did not materially increase in size, until May 17, when he died.

After his operation I corresponded with Dr. Goldenburg of Mt. Sinai Hospital, New York, with regard to the tumor of the testes, and was informed that it was removed after testing for tuberculosis and syphilis, and that the pathologist of the hospital at that time reported the growth as adeno-carcinoma.

Following is the autopsy report:

Autopsy report on body of D. F.

Body emaciated. Rigor mortis absent twelve hours after death.

Petechia over chest and upper abdomen. Panculus adiposis absent.

*Thorax.* Lungs anaemic and small, no adhesions.

*Heart.* Normal. Muscle anaemic. No enlarged mediastinal glands.

*Abdomen.* On opening peritoneum, intestines which come into view are dark red and present a granular dull surface. The parietal and visceral peritoneum are bound together by adhesions which are easily broken by the hand. These adhesions are very extensive, extending into the pelvis, where the hand falls into a cavity which takes an upward direction and is retroperitoneal. The small intestines are forced to either side of middle line by a large mass which protrudes upward from behind the peritoneum and mesentery, forcing the bowels into the iliac fossae

on either side. Individual coils of intestine are adherent to this mass, over which come large, dilated veins, and to each other. The bowels are so matted together that individual parts of the intestines are found with difficulty.

*Intestines.* Large intestine. Caecum shows perfectly healed scar from recent appendix operation. The ascending and descending colon is congested lumen patent throughout. Transverse colon is adherent to gall bladder by heavy old fibrous band.

*Small Intestine.* Jejunum and ileum firmly adhere to each other and to retroperitoneal mass; three feet from duodenum is an enlargement in the intestinal wall, soft and mushy to feel, which on section shows blood clot and is made up of disintegrated blood, fibrin and detritus. The lumen of the gut through this mass is patent. Numerous enlarged glands are seen in mesentery of small intestine, and in dissecting these from the retroperitoneal mass, the superior mesenteric artery is cut. Having removed the intestines, the retroperitoneal mass with some few coils of intestine and mesentery still adherent, is exposed. This mass extends from a point about one inch above the bifurcation of the abdominal aorta, and is triangular in shape, apex at this place, and the pelvis as its base, and sides about equal on either side of spine. Veins are very prominent over this, and in pelvis where adhesions were broken down there presents, on pressure, a partly organized bloody exudate. Removing this mass of blood clot, we come to a tumor mushy in feel, at apex of this entire mass, and locate it at inch below point of origin of right spermatic artery, which seems to course through it. This mass is loculated and from its position and appearance is taken to be a retroperitoneal gland. Microscopically it is soft and putty like, and

on section shows cheesy masses in part; some of the lobules appear very hemorrhagic.

Pancreas normal.

Liver. Normal in size. Anemic.

Gall bladder. Slightly enlarged.

Bile thick black.

Spleen, not enlarged. Old capsule thickened and few scars on surface showing perisplenitis.

Kidneys. Small. Old infarct in right kidney. Aorta. Ok.

Microscopical examination of small tumor shows the tissue to be lymph glands which has undergone adenocarcinomatous degeneration. The section of tissue taken from intestinal wall shows hemorrhagic detritus and no carcinoma. The sections of the gland which I demonstrate to you this evening show metastasis of the parent tumor in the gland, the line of invasion being evidently up the spermatic cord.

The case, in its entirety, presents several remarkable features—first, that a man who was practically bleeding to death in his abdominal cavity, could be up and doing.

Second, that he did not have more shock or present any of the classical

symptoms of hemorrhage during the first half of his illness.

Third, the diagnosis of acute gastrointestinal trouble at the onset was, in a way, justified from the history, and the absence of any definite symptoms pointing to the appendix, gall bladder liver, kidney, pancreas, etc.

Fourth, the significance of the ecchymosis into the cicatrix of the umbilicus in peritoneal hemorrhage or hemorrhage into the abdominal cavity, may be of importance in diagnosing hemorrhagic ascites, or peritoneal hemorrhage.

The *modus operandi* of its production I am not in a position at this time to present to you; probably it reaches the umbilicus along the line of the urachus. I observed this same condition in a patient who had a hemorrhagic ascites with carcinomatous metastases in the mesenteric glands secondary to advanced carcinoma of the stomach.

So far as I have been able to learn, there is no mention of this condition in the text-books or literature that I have been able to see.

602 Lissner Building.

## DOES THE CORRECTION OF PHYSICAL DEFECTS OF JUVENILE CRIMINALS IMPROVE THEIR MORAL CONDUCT?\*

### A Preliminary Report of Some of the Medical Work Done in the Juvenile Court of Los Angeles County.

BY JOHN ADAMS COLLIVER, B.A., M.D., MEDICAL PROBATION OFFICER, LOS ANGELES COUNTY.

The original intention of this paper was to give a complete analysis of about nine hundred juvenile delinquents examined. As a matter of fact, such classification was made according to crime, nativity, parentage, home, mentality, environment, different physical defects, including mal-nutrition, stigmata, pervers, fiends, bad habits, etc. In addition to this a cross-classification

of each of these was made as to age, crime, parentage, habits, etc.

From these classifications many interesting and scientific facts were learned; but the above data were of such magnitude, and the time so limited, that it became apparent that a subdivision of the subject must be taken, instead of the whole thing.

It is our object in the Juvenile Court

\*Read before the Southern California Medical Society, on December 2, 1909, at Los Angeles, Cal.



work to do all the moral good we can, so an endeavor was made to choose a subdivision illustrating some phase of this work.

It had been reported repeatedly, during the last five years, by the Judge and Probation Officers, and it was generally assumed, that good results followed the correction of physical defects. There were no data to prove this, except that the boys were compelled to report weekly, bi-weekly and monthly, as the case might be, and from these reports it was thought that a marked improvement followed many operations.

Being thus stimulated by the opinion of those who should know, I was led to compare my work in detail with the Court records of each boy. Up to the time this classification was made, it was known that the boys improved physically and sometimes mentally after operations, but as to the moral change, it was not clear, as there was no positive evidence.

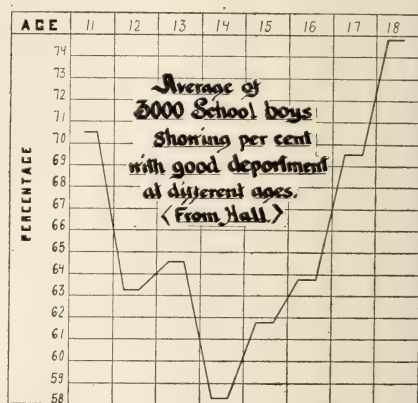
The results of this investigation demonstrated that nearly seventy per cent. of the boys who received attention showed more or less marked moral improvement.

Now, why was this? It could not be called a coincidence, nor a psychical effect.

A classification of all the boys by age revealed the fact that over seventy per cent. of them are just at puberty. At this age we have the period of profound physiological changes, dormant instincts and emotions beginning to awake into life. The sexual passions are born. Every boy with, as a rule, no one to guide him, emerges into abnormal experiences which necessitate the exercise of restraint upon a more extensive scale. The boy is also passing through a long and complicated process of adjustment to social surroundings.

According to many authorities, his natural tendency at this age is to revert

to the nomadic state of civilization. From a biological point of view he is mature, and in the animal kingdom the male goes forth from the parental protection to fight and make a home of his own. So in boys today we find the tendency to revert to the primitive state manifested in the form of truancies, incorrigibilities, frequent fights, etc. This is especially observed in all children's play, desire to be superior, rough play, killing, fighting, test games, etc. The school records at this period show worse deportment than at any other time. (Note Chart No. I.) Every man can recall some such tendency in his own experience at this age.



If we recall the conditions of the system at puberty, we can better understand the strain a boy labors under at this time. It is a common observation that boys grow faster between twelve and fourteen than at any other time, legs lengthen, shoulders broaden, muscles develop, face widens, larynx become more prominent, voice changes and later hair appears on different parts of the body. The heart almost doubles its capacity, with corresponding increased blood pressure. "Ratio of volume of the heart to width of aorta before puberty is 56-20, while afterward it is 97-20."

The whole system is undergoing a rapid change, which throws extra strain

upon the already overwrought, unstable nervous system. Brain fibres are increasing rapidly, new centers are being developed and habits formed. At this stage the centers of reproduction normally have the right of way; the tendency for these to predominate causes the normal person to exercise will.

Every sensory stimulus goes to a center, which in turn tends to produce stimulus in the motor nerves, resulting in action. Thus we have an arc. The intensity of the sensory stimuli or irritant produces corresponding tendency for action.

At puberty, as stated before, the natural tendency is not to be good, but to revert. In order to overcome this inclination it requires a restraint of the will, "which is an aggregate of tendencies to act in a firm, prompt and definite way." Thus the centers which govern obedience and right and wrong are also being developed.

The sexual center receives stimuli over the sensory nerves from the penis. At puberty these stimuli are increased by the gland doubling in size, increased blood supply, and increase in the Pacinian corpuscles of touch. The stimuli are still further increased and intensified by a tight foreskin, with adhesions and accumulations of smegma. This, in turn, hyper-stimulates centers, resulting in exaggerated desires and augments the tendency for action, and overbalances stimuli from other centers which tend to will the right. Stimuli of motor action are always stronger when arising from without than when arising within, as from the will. Thus counteracted and overbalanced, the center is weakened, resulting in untruthfulness, incorrigibility and weakening of the will. The boy knows the difference between right and wrong, but the exaggerated impressions coming to the sexual center "overflows," and blocks effort to do right.

The function of nerve cells is first to generate, second to discharge, and last of all to develop inhibition and co-ordination. Normally at puberty the centers of reproduction predominate, and tend to block stimuli going out from other centers, but when the sensory stimuli from the reproductive organs are exaggerated, as by an abnormal condition of the penis, this, coupled with the fact that inhibition functions of centers are feeble, readily explains why the centers governing the will (which are endeavoring to hold him from going in the line of least resistance) are overpowered, and the boy does wrong. The whole science of physiology, and especially psychology, is based upon this principle.

How can this condition be remedied? First, by increasing the stimuli to the centers governing the will—strengthen the will. Second, by allaying the sensitiveness of centers themselves. Third, by overcoming or lessening the sensory stimuli, which are the origin. The last is the easiest.

We remove the cause, by circumcising the boy, which breaks up the adhesions and removes the material which has been irritating the sensitive terminal nerves.

Now the arc is broken, and the exaggerated tendencies cease, the other centers predominate and the boy gets control of himself again.

The same principle is illustrated by the exaggerated stimulus from bad teeth, eyes, adenoids, tonsils, poor nourishment, etc. When these are remedied similar good results follow, for the same reason.

The records of boys are divided into groups.

First: Boys who had appeared in Court for several offenses, and who after operations or correction of defects, improved so much in conduct that they did not have to be taken into Court again, although reporting

continually to the Probation Officer, and doing well.

Second: Same class of boys as in the first class, appearing in Court on several occasions, who after operation improved in morals for a period, but finally, for some offense, later returned to Court.

Third: Those appearing in Court only once. After receiving attention, conduct at home and reports showed they did well, and were never brought in for further offenses.

Fourth: Those not doing well at first, but finally turning out much better.

Fifth: Those upon whom the operation apparently had no effect from a moral point of view.

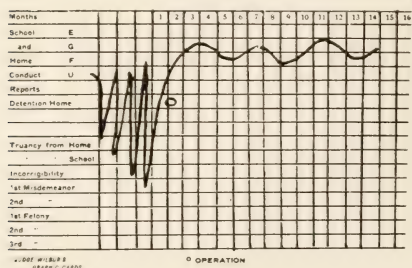


CHART II.

This chart represents stages by which boy usually goes wrong. 1. Unsatisfactory conduct at home. 2. Truancy from home. 3. Truancy from school. 4. Incorrigibility and bad company. 5. Misdemeanor. Vertical line represents conduct. Horizontal division a time, each space a month. Diagram represents career of boys taken from Chart I and II; correction of marked physical defect. None of these boys have appeared in court for over a year.

In the first group we have what would ordinarily be called bad boys, who have been tried in every way, and were turned over as almost hopeless. Some had appeared in Court for as many as twelve offenses. The physical defect was corrected by operation, usually circumcision. Of the thirty boys in this group, not one has committed an offense to appear in Court since. A record of their conduct at home and at school, which appears in the weekly, bi-weekly or monthly re-

ports in the Probation Office, shows a marked improvement in their morals.

In the second group we have boys worse than those in the first, with criminal tendencies more marked. In this class we have twenty-six, each of whom appeared in Court for an average of four offenses, at an average interval of three months. After they were operated upon they improved in morals for an average period of sixteen months each. During this time they were reporting continually, and doing fairly well. In other words, a group of boys, who were committing offenses every three months, some as often as every ten days, and whose conduct at home was not satisfactory, changed after the operation and did not commit an offense and did much better at home for an average period of over sixteen months each.

In the third group, as the Judge says: "We are getting on to ourselves." They appeared only once, but were given attention as soon as possible, when it was necessary. In this group we have twenty boys, and not one has been brought into Court for an offense since, and their reports show them to be doing fairly well.

The fourth group includes eight who shortly after operation ran away, or committed some petty offense, but the records show that they later did improve in moral conduct.

The fifth group includes fifteen boys upon whom no good moral effect was apparent, although helped from a physical point of view. In this group we find the stigmata of degeneration more marked; three or four being apparently marked with pre-natal influence. Their tendency was to be bad, and it was born in them. They are in Whit-tier or Ione now.

The next question is, did the operation lengthen the periodicity of crime? This is shown in Chart III representing thirty boys, taken from groups I and II, who have committed an average of



six offenses each in the average space of time of eighteen months. That is the time elapsing from the date of first offense to that of the last averaged eighteen months. If each appeared six times (as a matter of fact some appeared as often as sixteen, or more), in a space of eighteen months, we have a periodicity of three months (as a matter of fact some appeared as often as every ten days), before the operation, while immediately following we have a break in the periodicity to a jump of seventeen months, instead of three.

If but five per cent. of those who needed attention had been helped morally, or even one in a hundred positively, instead of more than seventy in a hundred as it is, we would feel that our work was justified. (The seventy per cent. helped applies to twenty-two per cent. of the total who need attention, thus making about sixteen per cent. in all who were benefitted.)

Of course, the number of cases under investigation are not sufficient to justify our considering the conclusions

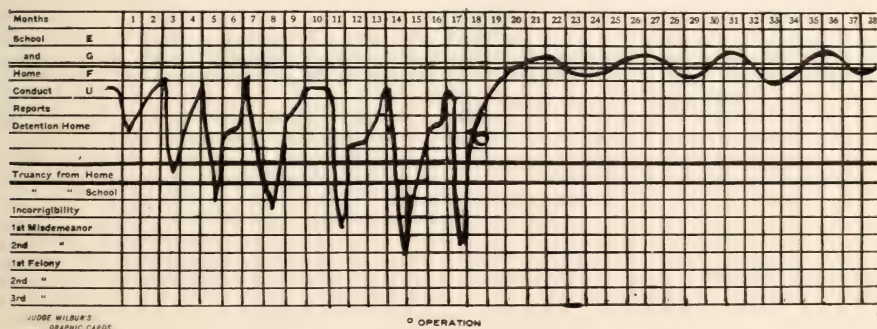


CHART III.

This chart represents periodicity of crime in 31 boys, each appearing in court for some offense on an average of six times each—at intervals of three months. After operation not appearing again for over eighteen months with more or less good report.

The boys in the first, second and third groups, or about seventy-five boys, showed marked moral improvement. In the fifth and sixth groups, containing twenty-four boys, they were not helped morally, yet the records showed physical and mental improvement.

Thus over sixty-eight per cent. of the boys showed marked improvement morally, while fifteen to sixteen per cent. showed no such improvement. These results do not include about thirty boys who were operated on during the past six months, as this short time did not seem a fair test, although a boy who has been bad in school, incorrigible at home and a nuisance in the neighborhood, who turns over and is better, even for a month, no doubt has been benefitted.

drawn as absolutely correct, and this paper must be considered as a preliminary report. The investigation will well repay further observations extending over a greater period of time and a greater number of cases.

If any good has been accomplished in this work, and if any benefit is to be derived in the future, the credit is due the one under whose stimuli and direction everything has been done. I refer to the Honorable Curtis D. Wilbur, Judge of the Juvenile Court of Los Angeles County.

A wart or a pigmented mole on the face may become an epithelioma if irritation exists. It may not if left alone.

# SOUTHERN CALIFORNIA PRACTITIONER.

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## EDITORIAL

### CONFERENCE ON MEDICAL EDUCATION.

This special conference, which is to be held in Chicago February 28th, March 1st and 2nd, 1910, bids fair to be almost epochal in its influence. Dr. W. Jarvis Barlow, dean of the Los Angeles College of Medicine of the University of California, has been appointed by Governor J. N. Gillett as California's representative.

Dr. Barlow has also been appointed by Dr. James H. McBride, president of the American Academy of Medicine, as the representative of that body at this conference. Dr. Barlow has sent a letter and a series of questions to each of the ten legalized medical colleges in California. In the course of this letter Dr. Barlow says:

"As a delegate to this meeting, I wish to present to this Congress the

facts of medical education as it exists in California, and would like a reply to the enclosed questions from you, so that your school may be properly and correctly represented. The list of questions will explain themselves."

Questions sent to the Colleges existing under the Medical Laws of California; to be answered by the Dean or his representative.

- I. College name?
- II. Location?
  1. College buildings, how many?
  2. Hospitals (name of) where College has teaching facilities?  
How many beds assigned to your College?
  3. Dispensary? Average number of patients treated yearly?
- III. Connected with University or not?
  1. If so, to what University and how affiliated?
  2. Give plan of connection.
- IV. Amount of Real Estate owned?
- V. Amount of equipment owned?
- VI. Endowment?
- VII. Number of Professors?
- VIII. Number of Students:
  - First year? Second year?
  - Third year? Fourth year?
  1. Number receiving diplomas 1908-1909?
- IX. Income last year?
- X. Expenses of last year?
- XI. Total expended on teaching salaries in first and second years?  
Number of salaried teachers?  
Total expended on teaching salaries in third and fourth years?  
Number of salaried teachers?

- XII. Entrance requirements?  
 1. Present?  
 2. What future announcement?
- XIII. Fees for each year:  
 First year? Second year?  
 Third year? Fourth year?
- XIV. Number of weeks taught each year?
- XV. Total hours given:  
 First and Second years (Didactic?  
 (Laboratory?)  
 Third and Fourth years (Didactic?  
 (Clinical?)

Governor Gillett, in his letter that accompanied Dr. Barlow's appointment, said: "I take great pleasure in designating you as a delegate to the American Medical Association at their educational meeting to be held in Chicago, beginning February 28th. I trust that you may find it convenient to attend this meeting and that it may be one of pleasure and profit."

### PHENOLPHTHALEIN AS A PURGATIVE.

Vamossy, in 1902, reported that phenolphthalein is a mild purgative, only slightly absorbable from the intestinal tract and quite devoid of toxicity. Later, Fleig claimed that the hypodermic administration of sodium phenolphthaleinate leads to a satisfactory catharsis. Although several subcutaneous purgatives, such as eserin and apocodein, are used, the fact remains that practical medicine does not possess an efficient hypodermic cathartic, and for this reason Fleig's finding is of more than ordinary interest.

Recently a study of phenolphthalein and some of its derivatives was made at Johns Hopkins University by Prof. Abel. His results not only confirm the earlier reports regarding phenolphthalein, including the efficiency of subcutaneous administration, but extend them in several important directions. Abel showed that the phenolphthalein

derivatives studied are non-irritants to mucous membrane, that they are absorbed from the large intestine when dissolved in bile, and that their laxative action may last for several days. Dr. Abel's investigations seem to point to the tetra-chlor derivative as the most satisfactory phenolphthalein compound known thus far. In many instances phenol-tetra-chlor-phthalein led to a mild catharsis which extended over five days. This prolonged action is explained by the fact that it escapes from the body by the bile only, and being reabsorbed from the large intestine again is excreted by the liver and again is absorbed in part from the large intestine. This cyclic process is repeated as long as the drug remains in the body, which under the conditions employed may be almost a week.

A purgative satisfactory subcutaneously as well as orally, non-irritating, devoid of toxicity, inducing an efficient yet mild and prolonged catharsis, assuredly is needed in practical medicine, and from the studies thus far it seems that in some of the derivatives of phenolphthalein drugs meeting these requirements exist.

L. B. S.

### STATE REGULATION OF EM- BALMING.

Probably every criminal toxicologist has met with cases in which the identification or quantitative estimation of a poison was either prevented or obscured by the nature of the embalming. And probably in most such instances the body could have been preserved fully as effectively by a fluid which would



not have masked the toxicological findings.

From the viewpoint of the toxicological chemist it seems feasible to consider the desirability of some form of regulation of embalming. Possibly negative legislation would be most satisfactory, that is, legislation prohibiting the use of certain chemicals in embalming.

It seems to us that this matter is of sufficient gravity to warrant its consideration by the State Medical Society. The report of a committee appointed from this body would be of interest.

L. B. S.

### THE CITY HEALTH OFFICER OF LOS ANGELES.

The daily papers of Los Angeles are again publishing political gossip to the effect that Dr. L. M. Powers, who for fifteen years has been the efficient and devoted health officer of the city of Los Angeles, is slated for dismissal by the new administration.

We sincerely trust that this is only gossip, and yet where there is so much and such recurrent talk there must be some basis for such stories.

As is well known, Dr. Powers has given many of the best years of his life in the service of the city. There has never been any question as to his willingness to work in season and out of season, day or night, twenty-four hours of the day, if necessary, when public health conditions seemed to warrant such work.

His ability has likewise never been called into question, nor his absolute fairness, and desire to give a square deal to all.

Because he has been a courteous,

fair, able and efficient health officer he has had the uninterrupted support of the medical profession during all the years he has been in office.

This has been evidenced by the fact that Republican members of the profession have ever sought to keep in office this health officer, himself a Democrat.

Also by the testimonial dinner tendered him by the entire profession several years ago, where the largest gathering of medical men of all schools, ever gathered together in Southern California, met to do honor to this faithful servant.

That dinner, it may be mentioned in passing, owed its origin in part to the desire of the profession to make known to the so-called "push" politicians who were said at that time to be after Dr. Powers' scalp, that any such decapitation at that time would meet with the severe displeasure of the medical profession.

Now we have a so-called "reform" administration in power, and again the public press is filled with these rumors concerning the dismissal of Dr. Powers.

For ourself, we think this constant agitation is altogether unfortunate.

In the first place, Dr. Powers, over a long period of time, has "made good." His integrity, his professional attainments and acumen, his courtesy, his willingness to work over-time for the city he loves, as well as his broad knowledge of the public health needs of the city—a knowledge broader than that possessed by any whose names we have heard mentioned as probable successors, and a knowledge, too, as valuable and as necessary as it is broad—

all these qualities bear witness to his capacity and why he should receive a "square deal."

Why, then, these constant rumors about dismissal?

"Lack of executive efficiency" is the charge usually uttered or hinted at.

And yet who, knowing the history of our health department, the manner in which the sub-positions were created and filled, with the inspectors and clerks now entrenched behind the civil service rules, could with justice lay the blame of the minor and petty deflections from duty by these subordinates on our health officer?

And who is there, who having knowledge of institution and organization work, would imagine a high state of discipline and executive efficiency possible when a multitude of masters give orders?

If we would have a satisfactory management of the health department, the executive management and orders should be vested in the health officer, and through him, in the chiefs of bureaus under him.

The Board of Health and members of that body should remember that they belong to the legislative branch of the health department, and that their executive agent is the health officer.

Further, that orders of the Board of Health should be given through the health officer and that no member of the Board of Health as an individual should give orders direct to employees or even through the health officer, unless such orders have had the sanction of the Board of Health in regular meeting assembled.

Another of the troubles with our health department has been that too many of the minor employees of that department have gotten the habit of "carrying tales" to the members of the Council and to the Board of Health, and being listened to in those quarters.

As a consequence, such employees feel more or less independent of their immediate superiors or of the chief of the department—the health officer.

Now, the sooner all this is made a thing of the past, the better for the health department, and the better for the city at large.

Give Dr. Powers that authority possessed by health officers in other cities where the health departments are well managed; let it be known that every man in the department must do his work well, and provide card systems whereby a tab may be kept on the work of every man from day to day; let the Board of Health give its energy to constructive thought and work on the public health problems of our city, leaving the health officer to carry out its orders, and then—if Dr. Powers fails to do his duty, it will be time enough to talk about a new health officer.

We give these thoughts editorial space because we have long watched the work of the health department with much interest.

We have not discussed health problems with Dr. Powers in many weeks. We confess we admire his work and his efficient devotion to duty and believe the great mass of our profession feels likewise.

On that account, knowing somewhat about the public health needs of the

city, we note with alarm this constantly recurring newspaper gossip about dismissal of Dr. Powers, gossip which breeds discontent and unrest in the department; which impairs the efficiency and discipline which Dr. Powers should maintain; and which hurts the public health interests of our city and of our people.

A couple of days before the last municipal election our present mayor, the Honorable George Alexander, delivered his most important address in a very memorable political campaign before the Southern California Medical Society. He had there an opportunity to note for himself somewhat of the caliber and intelligence and culture of the medical profession of Southern California.

It should be of interest to him to know that of the assemblage he faced that evening in the Hotel Alexandria, almost to a man, the doctors there present were friends and believers in Dr. Powers and that they would view with no little displeasure any attempt

to discredit or oust this man, after his many efficient years of public service.

More than that, we know of few acts which could possibly leave so nasty a wound for an administration pledged to reform, to heal, than such action.

Let us have an end, therefore, to all this unworthy gossip about dismissal.

Give Dr. Powers the authority that should be his, let the word go out to all subordinates that they must do their work well, without fear or favor, and then, if Dr. Powers fails, it will be time enough to talk.

But until then, let all recognize that our public health needs transcend political feuds and that our health department is to be run primarily for the benefit of the people, without regard to political affiliations.

On this platform, we believe most of the members of our honorable profession are agreed. Should it become necessary, it is to be hoped they will see to it that the "powers that be" are acquainted with their sentiments. K.

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## EDITORIAL NOTES

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Dr. Horatio Walker died in Pasadena, December 31st.

Dr. H. J. Andrews has located in Hollywood, Cal.

Dr. H. G. Wilson has located in Gallup, New Mexico.

Dr. C. F. Dail, formerly of Eureka, has opened a maternity hospital in San Diego.

Dr. Harold Sidebotham of Santa Barbara has returned from a trip abroad.

Dr. W. E. Waddell of Los Angeles has returned from Vienna.

Dr. H. O. Bates of Long Beach, who has been very ill, is steadily recovering.

Dr. Guernsey P. Waring of Evanston, Illinois, has located in Alhambra, California.

Dr. Wm. J. Hammer of Silver City, New Mexico, has gone abroad for a year's study.

Dr. J. L. Carson of Bakersfield, formerly of Los Angeles, died in the former city December 3, of diabetes.



Dr. Owen Rogers Stafford has been reappointed Health Officer of Los Angeles County.

Dr. C. A. Shepard of the Needles proposes to start a sanatorium for the tuberculous at Monrovia.

Dr. W. S. Smith has been appointed quarantine officer for Port Los Angeles (Santa Monica) and Redondo.

Dr. H. J. Johnson of Santa Maria, Santa Barbara County, proposes to erect a modern hospital in his home town.

Dr. Rex Duncan has been appointed second assistant health officer of the city of Los Angeles, vice Dr. Tebbets resigned.

Dr. W. A. Hodkinson, whose offices are in the Peenan Building, Pittsburg, Pennsylvania, spent the holidays in Los Angeles.

Dr. P. M. Savage of Chino, California, has been spending several weeks with Dr. John B. Murphy and other Chicago surgeons.

Santa Barbara has a society for the Study and Prevention of Tuberculosis, with Dr. Rexwald Brown and Dr. Wm. H. Flint as Vice-Presidents.

Dr. G. B. Rowell and Dr. Clark E. Saunders (recently of Chicago) have entered into partnership for the practice of medicine in San Bernardino.

Dr. W. Harriman Jones of Long Beach recently received from the board of education of that city 15 cents apiece for vaccinating 390 children.

Whenever a medical orator or editor gets a little short on thoughts he throws in a few fervid sentences on "The Venereal Blight" or "The Great White Plague."

Dr. T. A. Stoddard of Santa Barbara and Dr. John C. Ferbert of Los Angeles have been spending a few weeks with Dr. John B. Murphy and other Chicago surgeons.

In the list of those who successfully passed the Minnesota State Board of Medical Examiners is one graduate of the College of Physicians and Surgeons of Los Angeles.

The *New Mexico Medical Journal*, under the editorship of Dr. T. F. B. Fest of East Las Vegas, New Mexico, comes out in a much more elaborate form for December.

Dr. D. W. Edelman has resigned as member and president of the Civil Service board of Los Angeles and Dr. John R. Haynes has been appointed his successor by Mayor Alexander.

The December issue of the *Annals of Surgery* celebrates the closing of the fiftieth year of its publication and is fitly called the Jubilee Number. It consists of 400 pages of valuable text.

Dr. T. B. Lyons is president of the Colfax (New Mexico) County Medical Association. At their recent meeting at Raton the evening was devoted to scarlet fever. The prevalence of this has closed the Las Vegas schools for several weeks.

Dr. H. Wilson Levengood has become a partner of Dr. C. E. Anderson. Dr. Levengood is a graduate of the Medico Chirurgical College of Philadelphia, has served as house physician at the Medico Chirurgical Hospital of Philadelphia and at the Pottenger Sanatorium, Monrovia, Cal.

Dr. C. W. Girdlestone entertained the Riverside County Medical Society at supper at the Victoria Club recently. The supper came after a scientific meeting at which Dr. H. A. Atwood read a paper on "Cerebral Hemorrhage" and Dr. W. B. Payton read a paper on "Cerebral Embolism."

Dr. C. E. Standlee, assistant surgeon at the Soldiers' Home, Santa Monica, has resigned in order to take up private practice in the Imperial Valley. Dr. Wm. M. Cade, third assistant at the

Soldiers' Home, Milwaukee, Wisconsin, will be transferred to Santa Monica and promoted to second assistant.

Dr. Irwin N. Frasse died in Monterey, California, December 17, 1909. Dr. Frasse was a graduate of the Medical Department of the University of Pennsylvania, class of 1890. He formerly lived in Los Angeles and was held in high esteem as a thoroughly equipped physician and a high type of a gentleman.

The City Council of Los Angeles has authorized the Board of Health to employ a nurse at \$75 per month, said nurse to be under the direction of the Los Angeles Society for the Study and Prevention of Tuberculosis. This was done on the recommendation of Dr. George H. Kress, secretary of the State Tuberculosis Association.

Dr. Frederick A. Cook, graduate of the Medical Department of Columbia University, has brought the blush of shame to a sensitive profession, but the antidote is the career of Dr. Leonard Wood, who graduated from the Medical College of Harvard University and in twelve years has risen from assistant surgeon to be the head of the Army of the United States.

The Bernalillo County Medical Society, New Mexico, has elected the following officers for the coming year: President, Dr. L. G. Rice; First Vice-President, Dr. H. B. Kauffman; Second Vice-President, Dr. C. A. Frank; Secretary, Dr. F. E. Tull; Treasurer, Dr. E. Osuna; Censor, Dr. Walter G. Hope. Delegates to the annual meeting of the New Mexico Medical Society, Dr. J. F. Pearce and Dr. H. B. Kauffman.

We regret to learn that Mahlon N. Kline, president of the Smith, Kline & French Co., wholesale druggists, Philadelphia, died suddenly of heart failure on Saturday evening, November 27, while attending a meeting of the

Brotherhood of St. Andrew at the Church of the Saviour, Philadelphia. Mr. Kline was a broad-minded Christian gentleman. He was deeply interested in an endeavor to purify the municipal government of Philadelphia. We knew him well personally, and held him in the highest esteem.

The people of Monrovia, Cal., seem to believe in Sanatoria. They already have the Pottenger Sanatorium—one of the most noted institutions in America, and they have just expressed their permission, by a decisive vote at a special election, to Dr. Shepard to establish another Sanatorium. Dr. Pottenger could have no more positive compliment than this. He has proven to the people of Monrovia that a well-managed sanatorium is a desirable accessory of a prosperous community.

The Bernalillo County, New Mexico, Medical Association has elected the following officers for 1910: President, Dr. L. G. Rice; First Vice-President, Dr. H. B. Kauffman; Second Vice-President, Dr. C. A. Frank; Secretary, Dr. F. E. Tull; Treasurer, Dr. E. Osuna; Censor, Dr. Walter G. Hope.

Officers were elected for 1910 by the Riverside County Medical Association at its annual meeting, which was held at the Riverside Country Club on Monday evening, December 6. Dr. A. W. Walker was chosen President, Dr. H. A. Atwood was elected Vice-President, and Dr. G. E. Tucker was re-elected Secretary and Treasurer. The subject of "Bone Surgery" was treated in an address by Dr. Dean Lewis of Chicago, who illustrated his talk with stereopticon views. Following an informal discussion, a supper was served in the Dutch room and a social time was enjoyed. Among the guests were Dr. Lewis of Chicago, Dr. C. A. Toland and Dr. Swindt of Pomona, and Dr. F. R. Burnham of San Diego, a member of the State Board of Medical Examiners.

January 1st Dr. E. R. Smith, the Los Angeles surgeon, retired from general practice and will hereafter meet patients for consultation only by appointment. The office in the Bradbury Building will be maintained as heretofore by his son, Dr. Rea Smith, to whom all requests for consultation should be made. After nearly a quarter of a century as one of the most prominent and highly esteemed practitioners in Los Angeles, Dr. Smith has purchased a beautiful suburban home at Alhambra, eight miles from the city, where, when he feels so disposed, he can devote himself to old books, old friends, and a little old wine on the side. Thus he will take his ease under his own vine and fig tree, and will reach out of his own breakfast-room every morning and get a fresh orange from the tree with which to begin the day. This ideal home nestles up close to the Sierra Madre mountains and when the doctor gets tired of old books and old friends he can feast his eyes on the ever-changing hues of the grand old delectable mountain peaks that stand—after being tried by the centuries—as the protecting "sentinels" of his household.

At the recent examination in Los Angeles of the California State Board of Medical Examiners sixty-six passed and thirty-one failed. The following is the list of those who were successful: C. S. Allen, Alice G. H. Anerson, H. J. Andrews, L. Bruce Barnes, Arthur Beardslee, H. R. Boyer, John H. Breyer, John Mackenzie Brown, Henry D. Brusco, E. A. Buehler, Joseph A. Collie, Harriet L. Connor, G. H. Copeland, Ada Crawford, Henrietta Damkroeger, Brett Davis, Peter DeLucis, Jos. S. Derrick, Emily C. Dole, Lee Eloesser, David J. Evans, E. Bertella Ferguson, Don P. Flagg, Harry G. Ford, B. S. Frary, Edwin C. Gilbert, R. H. Goodale, Jas. P. Gorey, G. W. Hartman, Albert W. Hiller, J. E. Jennisson, E. J. Johnston,

Howard D. Kessler, Effie K. Kester, Frank W. K. Kidder, Anna B. Lefler, Himan Lischner, A. Gomez Lumsden, Ethel Grace Lynn, L. W. Mansur, J. L. McDaniel, Raymond Thornton McGurk, C. F. Metcalf, A. P. Miller, Robert E. Moss, Arthur S. Murphy, Adolph H. Nahman, Lura B. Nelson, Bernard J. O'Neill, Lee W. Paul, Anders Peterson, Chas. J. R. Peterson, Jno. A. Reily, Chas. Remondino, Marion Stuckey Reynolds, Jas. H. Robinson, S. E. Sanger, C. P. Shaffer, Hovey L. Shepherd, H. H. Sutherland, Dale W. Thurston, W. R. Tyler, Thomas Henry Ullyot, F. J. Wagner, Samuel Weiss, H. B. Yacoubi.

Six women failed and nine passed, making their proportion about the same as that of the men. We expected better of them.

"The Effect of Tuberculosis on the Heart" is the title of a reprint by F. M. Pottenger, A.M., M.D., LL.D. His conclusions are as follows:

"1. A relative low blood pressure is found in tuberculosis, especially in advanced tuberculosis.

"2. The factors which favor low pressure are the effect of the toxins on the vasodilators, the weakness of the heart muscle and general wasting.

"3. The factors which have a tendency to maintain pressure are hypertrophy of the heart muscle and thickening of the systemic arteries.

"4. Thickening of the systemic arteries occurs perhaps as a result of the action of the toxins on the vessel wall and is found especially in patients who have had tuberculosis for some time.

"5. Myocarditis is a condition very common in advanced tuberculosis and one which, if recognized, yields to appropriate treatment in many instances.

"6. It is difficult to give an opinion on the heart tones in advanced tuberculosis because conditions surrounding



the valves are changed by such things as infiltrations, cavities, emphysemas and contractions.

"7. In the majority of advanced cases (99 out of 130) the heart is displaced and working at a disadvantage.

"8. In estimating the size of the heart it must be remembered that as the heart pushes over to the left it pushes backward and consequently the lateral diameter as taken on a level with the fourth interspace does not give an adequate idea of the real or true size of the heart; also that the hypertrophy of the right heart often throws the left ventricle backward, producing the same result."

At the meeting December 15 of the San Bernardino County Medical Society, there was organized another society, to be known as the Physicians' Club of Redlands, and will embrace the leading medical men of that city and of the county. The club was officered at the meeting and negotiations were completed for handsome quarters, elegantly appointed, in the new Masonic Temple, where social rooms and place for gathering will be found.

The new club is to be a social organization, and also for scientific investigations and medical research and other matters of interest to physicians. It is expected to be a strong and interesting center for medical men and scientists.

#### MEDICAL CLUB OFFICERS.

The officers and directors chosen are as follows: President, Dr. C. E. Ide; vice-president, Dr. J. L. Avey; secretary and treasurer, Dr. Hamilton Forline; other members of the directorate, Dr. W. B. Power and Dr. T. M. Blythe.

The meeting held December 15 of the San Bernardino County Medical Society was for the purpose of choosing officers for the ensuing year, it being the annual meeting. They gathered at the parlors of the University Club, which continues to serve as the

society's meeting place. But early in January the meetings will be held in the new Masonic Temple building, through the courtesy of the newly formed Physicians' Club. The following were chosen officers for the year: President, Dr. W. P. Burke; vice-president, Dr. Hoell Tyler; second vice-president, Dr. T. M. Blythe; secretary, Dr. Gayle G. Moseley; treasurer, Dr. William A. Taltavall. All the officers are residents of San Bernardino, Dr. Burke, the new president and a long-time member of the organization, having a few months ago removed from Highlands to San Bernardino.

#### THE HYSTERIC.

*(With apologies to Kipling).*

A woman there was, and she thought  
she was ill, (As you or I might  
do.)

She sought each doctor of well-known  
skill,

Took gallons of medicine and a pill,  
She could barely walk without a spill,  
Each disease she thought she knew.

Oh, the things she tried, and the way  
she cried (When she said she was  
no better).

She grew nearly wild, that's drawing it  
mild—

From reading of cure-alls for woman  
and child,

Her cupboards and bureaus with bottles  
were piled,  
(She'd kept right on if we'd let her).

But I don't like to tell, of the way she  
got well, (It smacks somewhat of  
disgrace).

She'd been dying so long, that her hus-  
band went wrong,

Came home late at night roaring a  
terrible song,

The patrol came at once with its very  
loud gong,

She got well in a very short space.

—*Amoretta Fitch.*

## OF GENERAL INTEREST

LIST OF SCIENTIFIC MARTYRS  
GROWS RAPIDLY.PERSECUTION OF EARLY DAYS  
HAS GIVEN PLACE TO  
DEATHS FROM EXPERI-  
MENTS.

## LIVES RISKED FOR OTHERS.

*Medical Men Are Fully Aware of the  
Dangers When They Enter Pro-  
fession.*

LONDON, Dec. 25.—The heroic story of the death of Dr. John Herbert Wells, who recently succumbed to glanders after eighteen months of suffering, adds another name to the ever-growing list of men who have faced martyrdom in the cause of scientific knowledge for the welfare of their fellow men.

Early scientists, like Galileo, suffered persecution for their enlightenment, and various seekers after the secret of the transmutation of metals or of perpetual motion are said to have blown themselves to pieces in their search for scientific truth. But with the vast strides which science—and in particular medical science—has made in more recent years the roll of martyrs in the cause of knowledge has rapidly increased. Nowadays every research student in a hospital carries his life in his hands, and here and there science is claiming her sacrifice.

## DIED LIKE A SOLDIER

Less than three months ago the death was recorded, in Paris, of Dr. Jacques Autoine Regnier, son of a leading member of the Academy of Medicine, who contracted blood poisoning while conducting a post-mortem examination in the Necker Hospital. On his deathbed he urged his friends not to grieve "for," he said, "I die like a soldier on the battlefield; when you take up the

medical career you are aware of the dangers, and must be ready ever to face them." Such are the sentiments which animate most of the men who devote their lives today to the cause of science, which is the cause of mankind.

Eighteen months ago a patient in quarantine at Singapore died, and a post-mortem examination became necessary to determine the cause of death. Two doctors—Dr. Raikes and Dr. Wray—both Government medical officers, and therefore bound by duty as well as by the call of science—discharged the perilous task. Both men contracted the plague. Both men died. Death on a battlefield might seem more merciful.

The death of Dr. Allan Macfadyen, the bacteriologist, in London two years ago, was due to a combination of two diseases which he contracted in the course of his search for a preventive of disease. Dr. Macfadyen was connected with the Lister Institute, and was conducting a series of experiments with the bacteria of typhoid and Malta fever, with the view of discovering a vaccine to prevent these diseases. By an accident, it is believed, he contracted both, and his name was added to the roll of martyrs of the laboratory.

## BLOOD POISONING LED TO CANCER

Within a few months of Dr. Macfadyen's death occurred the death of Dr. W. H. Brown, one of the leading members of the medical profession in Leeds and a specialist in the treatment of cancer. Two years earlier, while operating, he contracted blood poisoning, and this, it was believed, led to the cancer which caused his death.

A fortnight afterward. Dr. Seneca Powell, one of the best known professors of medicine in the United States, and a teacher in the New York Post-Graduate School of Medicine, became a victim of his daring investiga-

tions into carbolic acid poisoning, after three years' illness. Believing that pure alcohol could be used as an antidote for carbolic acid poisoning, Dr. Powell made repeated experiments on himself to test his theory for the benefit of the world. His heroic experiments were said to have undermined his constitution, and he died a martyr to science.

Professor Curie, who, with his wife, won a place in the history of science as the discover of radium, was perhaps saved from a martyr's lingering death by the street accident which cut short his life. His journey to London, with the first tube of radium ever exhibited, resulted in a wound in the chest which took months to heal, for the radium emanation passed through his waistcoat and underclothes and burned his chest to the bone. His experiments with radium scourged his hands and arms, which were practically paralyzed to the elbows and rendered unrepresentable to the eyes of strangers.

#### DEATHS IN AMERICA

In America the early history of the Roentgen rays was marked by the death of two men. One was Clarence Dally, chief assistant to Mr. Edison, and the other was Dr. Louis Weigel, of New York.

For seven years Mr. Dally was a martyr to dermatitis, caused by the exposure of his hands and arms to the rays. A cancerous growth developed on his left arm, the lower part of which had to be amputated. His hair died off. Four fingers of his right hand had to be taken off, and finally his right arm followed. But it was of no avail, and in September, 1904, his life paid the penalty of his devotion to science.

The sufferings of Dr. Hall Edwards, of Birmingham, who has had both hands destroyed by the Roentgen rays; of Mr. Cox, who in February of this year underwent a second operation in consequence of his early experiments,

and of other X-ray experiments, have been described during the past three or four years. Dr. Cecil Lyster, of the Middlesex Hospital Finsen light department, is one of the men who have been maimed for life as the price of their work in the cause of science.

#### TROPICAL FEVER VICTIM

The name of Dr. Macatier Pirrie, who made two expeditions along the course of the Nile for the study of tropical fever, is recorded as that of a victim of scientific research. Dr. Pirrie went to the far ends of the Bar-el-Ghazal and to the borders of Abyssinia, penetrating some of the most deadly areas. He came home stricken with the disease which he was seeking to eradicate. Although he wrote a paper for the British Association, he was too ill to read it before that assembly, and he died when he was only twenty-eight years old.

Dr. Dutton, of the Liverpool School of Tropical Medicine, was twenty-nine years old when he died of tick fever, contracted while trying to elucidate its effects on man.

Many diseases have stricken down the men who fearlessly faced them. Two years ago, during an outbreak of spotted fever in Rome, Dr. Zampagani, while tending some of the victims, contracted the disease, and, with death striding toward him, he sat down and wrote a treatise on the fever which before long proved fatal to him.

At Turin, Dr. Giuseppe Bosso experimented with tubercle bacilli, which he developed in the university laboratory. He became infected with the very bacilli he had grown, and his name also is inscribed on the roll of martyrs to science.—*Exchange*.

According to tests made recently on 728 children from the tenement house section of New York City, 28 per cent showed signs of tuberculosis either of the joints, glands or lungs.



## HEALTH DON'T'S FOR SCHOOL CHILDREN.

Dr. T. E. Cunnane closed an address that he gave recently before the Ventura Teachers' Institute with the following pertinent epigrams:

Every boy and girl should be encouraged and urged to engage in physical exercise adapted to his physical condition, and none should be allowed to engage in a physical contest without first undergoing a physical examination to ascertain whether he is in condition to undergo such a strain.

The State law requires prize fighters to undergo such an examination. Are they more precious than our boys and girls?

In conclusion here are a few "don'ts" I would like every teacher to think over.

Don't teach unless you are in good health.

Don't teach in a poorly ventilated or unclean room.

Don't guess at the temperature of the room; depend upon the thermometer.

Don't put your work on a shining blackboard, but if you do, don't give a near-sighted child "X" because he cannot see it.

Don't seat a near-sighted child in the darkest part of the room.

Don't fit the child to the desk, but fit the desk to the child.

Don't keep a child in school at recess or after school hours.

Don't remain in the schoolroom yourself at recess or after school hours.

Don't take your school work or your school troubles outside of the school-house.

Don't think you are a good disciplinarian because the children fear you—they may also despise you.

Don't "boss" the children while playing—unbossed play is of much more value.

Don't allow the children to use a common towel, comb or brush.

Don't think you are a police officer on parade in the schoolroom—it makes the children nervous.

Don't be afraid to trust the children.

Don't allow the janitor to use a feather duster—have him use a cloth.

Don't forget that healthy children are easier to teach than invalids—and

Don't forget that medical inspection of schools will improve the health of the children and the teacher, and will make both happier and longer lived.

## BOOK REVIEWS

A TEXT-BOOK OF SURGERY, By George Emerson Brewer, A.M., M.D., Professor of Clinical Surgery at the College of Physicians and Surgeons, Columbia University, New York. 915 pages, illustrated with 415 engravings in the text and 14 plates in colors and monochrome. Second edition, thoroughly revised and much enlarged. Cloth \$5.00 net. Lea & Febiger, Publishers, New York & Philadelphia, 1909.

This volume is divided into 31 chapters and is well indexed for ready reference. Much new matter has been added. Among the new illustrations there has been introduced a number of colored photographs of gross lesions, taken by the Lumiere process.

The treatment of tetanus outlined

on pages 51 and 52 suggests more optimism in the use of antitoxin than many of the profession entertain. The Meyer and Ransom intraneural method of injection is said to yield the most favorable results. "By injection of the nerve above the point where it has been exposed to the tetanus toxin the progress of the toxin along the nerve is blocked and tetanic convulsions do not occur." This places the injection rather in the prophylactic class. However, this method in the hands of the reviewer yielded happy results in one case, in

1906, where tetanic convulsions had occurred repeatedly for 36 hours before the nerve sheath was injected.

Chapter V—Tumors—on pages 82 and 83, discussing "Innocence and Malignancy in Tumors," Brewer states, "There is no sharp dividing line between innocence and malignancy in tumors." Too often we submit a section of tumor to the pathologist expecting that his microscopical findings will give us a definite diagnosis of malignancy of innocence. The author emphasizes gross or clinical attributes: "Rapidity of growth, invasion of adjacent tissues by eccentric or peripheral growth, or infiltration. The tendency to local recurrences after removal. The formation of metastases. The tendency to produce cachexia." Microscopic examination of tissue is given due recognition, but not allowed to overshadow all other features in determining the character of every new growth.

Some exceedingly interesting observations upon nerve anastomosis are given in Chapter XIII. This is a comparatively new field of surgery in which much may be expected in development of its applicability to traumatic paralytic conditions. One is surprised to see general saline irrigation of the peritoneal cavity recommended. This is a feature of abdominal surgery that we believe has justly fallen into disuse. The work as a whole is a valuable volume for the general practitioner and the medical student.

C. W. D.

A MANUAL OF OTOTOLOGY. Gorham Bacon, A.B. M.D., Professor of Otology in the College of Physicians and Surgeons, Columbia University, N. Y.; Aural Surgeon, New York Eye and Ear Infirmary; Consul Otologist, Roosevelt Hospital, New York. With an introductory chapter by Clarence John Blake, M.D., Professor Otology in Harvard University. Fifth Edition, revised and enlarged, with 147 illustrations and 12 plates. Lea & Febiger, New York and Philadelphia, 1909.

The popularity of this work is attested by the demand for the fifth edi-

tion within a comparatively few years. The author certainly deserves great credit for the manner in which he rejects the obsolete and incorporates the new in each succeeding edition. The student can find no better small manual in the market at the present day.

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DISEASES OF THE NOSE, THROAT AND EAR. By Charles Huntoon Knight, A.M., M.D., Professor of Laryngology, Cornell University Medical College; Surgeon, Manhattan Eye, Ear and Throat Hospital; Consulting Laryngologist, New York State Hospital for Crippled and Deformed Children, etc.; and Dr. W. Sohler Bryant, A.M., M.D., Consulting Otologist, Manhattan State Hospital; Senior Assistant Surgeon Aural Department, New York Eye and Ear Infirmary. Second Edition, revised, with 239 illustrations. Philadelphia, P. Blackiston's Son & Co., 1012 Walnut street, 1909. \$4.50 net.

This second edition contains chapters on Deviated Septum and Diseases of the Accessory Sinuses which were not included in the former edition. This, without doubt, is right, as the student and doctor should be kept in touch with the latest developments, and this is one of the first text-books to incorporate the teachings of the western operators. The reviewer does not believe that enough attention has been devoted to the direct method of examination of the larynx and the direct method of removing foreign bodies from the upper air passages, because the older books are sufficiently clear and satisfactory in detailing the older methods and the student is looking to the newer books for fuller descriptions of the newer methods. The section on the Ear is new to this edition. Taking the book through and through, it is an exceedingly satisfactory work.

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THE PRACTITIONER'S VISITING LIST for 1910. An invaluable pocket-sized book containing memoranda and data important for every Physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar

for two years. Price by mail, postpaid, to any address, \$1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

It contains among other valuable information a scheme of dentition; tables of weights and measures are comparative scales; instructions for examining the urine; diagnostic table of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive table of doses; an alphabetical table of diseases and their remedies, and directions for ligation of arteries. The record portion contains ruled blanks of various kinds, adapted for noting all details of practice and professional business.

Printed on fine, tough paper suitable for either pen or pencil, and bound with the utmost strength in handsome grained leather, *The Practitioner's Visiting List* is sold at the lowest price compatible with perfection in every detail.

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**MINOR AND OPERATIVE SURGERY, INCLUDING BANDAGING.** By Henry R. Wharton, M.D., Professor of Clinical Surgery in the Woman's Medical College, Philadelphia. New (seventh) edition, enlarged and thoroughly revised. 12mo, 674 pages, with 555 illustrations. Cloth, \$3.00, net. Lea & Febiger, Philadelphia & New York, 1909.

Dr. Wharton's very compact and comprehensive manual covers a large and important field often inadequately treated in the voluminous works on general surgery. He describes and illustrates with abundant photographs all the bandages used today, showing clearly their successive turns, and then similarly treats all minor and major operations save those of a capital or gynecological nature. A useful chapter for the student and teacher as well as the practitioner deals with the operations that can be taught and practiced on the body. This new edition has been revised thoroughly to the latest date both in its text and its profuse and telling illustrations.

**THE MEDICAL COMPLICATIONS, ACCIDENTS AND SEQUELS OF TYPHOID FEVER and other exanthemata.** By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia, Physician to the Jefferson College Hospital; one time Clinical Professor of Diseases of Children in the University of Pennsylvania, and E. J. G. Beardsley, M.D., L.R.C.P. (London), Assistant Physician to the Out-patient Department of the Jefferson Medical College Hospital; Assistant Demonstrator of Physical Diagnosis and Clinical Medicine at the Jefferson Medical College, Physician to the Henry Phipps Institute, with a special chapter on the Mental Disturbances following Typhoid Fever. By F. X. Dercum, M.D., Professor of Mental and Nervous Diseases in the Jefferson Medical College. With 26 illustrations and 2 plates. Lea & Febiger, Philadelphia and New York.

After quoting from Allbutt's *System of Medicine*, the usual type of typhoid, the author well states on page 42: "If this be taken as a type of an average case, we find at once that on either side of this type undoubted cases occur which by their extreme mildness may be overlooked, or by their great severity may mislead the physician into the diagnosis of some more acute and rapidly progressing affection.

"Not only may the course of the malady be very mild indeed, but it may be so brief as to throw doubt on its specific character, the whole illness lasting twelve to seventeen days, and then recovery being established. Sometimes even less time elapses before the fever ceases and the patient is manifestly convalescing.

"Then, again, the abortive type of this fever presents itself, in which, after an illness beginning with quite characteristic manifestations, often of considerable severity, the symptoms rapidly ameliorate, and convalescence is established within ten days of the onset."

On page 193, we find "There are few, if any, diseases, which do not have special predilection for the heart muscle or its valves, which so gravely interfere with normal circulation as does typhoid fever. The length of the febrile movement and its severity, the gravity of the toxemia, the wasting of the patient, his inability in certain cases to take sufficient nourishment, and the impaired ac-



tion of various other vital organs than the heart, all tend to produce weakness in the heart muscle and actual degenerative changes in its nerve-supply and muscle fibers. As long ago as 1875, Hayem made one of his characteristically thorough studies concerning the heart muscle in typhoid fever, in which he showed that a granular parenchymatous degeneration is present in many cases, and that even fatty degeneration may be met with in prolonged severe cases associated with great anemia. Hyaline changes are not commonly found, but a segmenting myocarditis, in which the intercellular cement substance is softened, may be present, although this is, perhaps, a post-mortem change. Many years ago, Stokes asserted that the heart muscle of patients dead of enteric fever was so softened that if it were held upside down by its great vessels the muscle would collapse over the hand like a mushroom overspreads its stem."

Under "Splenic Lesions" on page 227 occurs the following statements: "Sometimes hypertrophic enlargement of the spleen occurs after typhoid fever. We have seen two cases; the enlargement in one case is illustrated in Fig. 25. There were no blood changes, and no history of malarial infections was obtained in this case.

"A number of cases of rupture of the spleen due to development of an abscess; and later exposure and traumatism, have been recorded during convalescence in typhoid fever. Harrington reports two cases of abscess of the spleen during typhoid: one found post-mortem and one operated upon. Federmann in the same journal reports an instance of abscess of the spleen which complicated convalescence. Biron reports a similar case."

On pages 229 to 236 is an interesting discussion of neuritis as a complication. And so follow through the work the various complications and sequelae of

typhoid, after which are considered the complications and sequelae of the eruptive fevers.

It is a work that has a distinctive place and a general usefulness in the literature of the times.

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DISEASES OF INFANTS AND CHILDREN,  
By Henry Dwight Chapin, A.M., M.D.,  
Professor of Diseases of Children, New  
York Post-Graduate Medical School and  
Hospital; Supervising Physician of the  
Children's Department, New York Post-  
Graduate Hospital; Attending Physician  
at the Willard Parker and Riverside Hos-  
pitals; Consulting Physician to the Ran-  
dall's Island Hospital and to St. Agnes  
Hospital, White Plains, and Godfrey Roger  
Pisek, M.D., Professor of Diseases of Chil-  
dren, University of Vermont; Adjunct  
Professor of Diseases of Children and  
Attending Physician to the New York  
Post-Graduate Medical School and Hos-  
pital; Attending Physician to the Dar-  
rach Home for Children. With 179 illus-  
trations and eleven colored plates. New  
York; William Wood & Co., 1909. \$4.50  
net.

This volume has been written by teachers who feel that a large contact with students has made them fairly familiar with their needs. Probably the first requirement at present is to bring each branch of medicine into as compact a form as is consistent with a thorough presentation of the subject. The aim has been to accomplish this with pediatrics. To many, the diagnosis and treatment of diseases of infants and children are most perplexing. These difficulties can only be overcome by first sharply differentiating the anatomical and physiological peculiarities of the infant and child, and then considering their practical bearings.

"Where pictures can serve as a type, we have used illustrations, most of which are original. Theory and pathology have only been considered in so far as may be necessary to an understanding of the diagnosis, course and treatment of disease. We have tried to take a middle course between the compendium, which is usually unsatisfactory, and a too exhaustive work, which, by dwelling overmuch on theory and exceptions, tends to confuse the reader."

On page 41 under "The Examination of the Sick Child" occurs the following: "If the physician unaccustomed to the care of children will first learn what to expect to find in the normal child, he will better appreciate the variations in disease. He must first of all learn that a proper examination will take time, and that a hurried examination often leads to grievous errors. Having once made up his mind to be systematic, thorough, and painstaking, the bugbear of pediatric practice will begin to disappear and diagnoses will be made where formerly there was disappointment and confusion. The younger the infant or child, the greater are the peculiarities from the adult type in its relation to the disease."

This is followed by ten pages of "Suggestions as to Methods of Examination."

Under "Special Examinations" on page 55 is given the Moro Test, which to the reviewer seems particularly adapted to children.

On page 61 under "Therapeutics" occurs a statement which is of far greater importance than usually considered, namely, "Opium or its derivatives, with the exception of codein, are to be largely avoided."

While Psychotherapy is usually limited to adults, the following quotations from page 66 seem timely and sensible and open a new train of thought for the reviewer: "The influence that can be exerted for good or evil over the receptive mind of the child has been well emphasized in recent years by psychologists and physicians. Often a good part of a physician's success in handling little patients is due to his knowledge and interest in their mental processes. He learns to take advantage of their susceptibility to conviction, to suggestion, or of their pride, and control is thus easily acquired. The harmful influence of certain members of the family may prevent good results, especially in neurotic diseases, until the

child is removed to different surroundings. A stranger has often better control over the sick child than its own mother. Time spent studying the mental attributes of a seemingly incorrigible patient is well spent, for almost without exception the maturer mind conquers by persistence tempered with kind indifference.

"In older children hysterical manifestations can be controlled by the forceful attendant and their repetition prevented by a radical change in environment and daily routine. Such conditions as enuresis we have often been able to cure by psychic influences depending mainly upon the child's pride. Another factor often lost sight of in this connection is the influence of associates. Through a proper selection of playmates in age and temperament, much may be done from a psychic standpoint."

The chapter on "Practical Feeding" has much to commend it and occupies some 35 pages.

The latter two-thirds of the book is given to consideration of the various diseases of childhood.

The book has beautifully clear type and is well indexed. Every working library should contain the volume.

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AN EPITOME OF DISEASES OF WOMEN.  
By Charles Gardner Child, Jr., M.D.,  
(Yale), Clinical Professor of Gynecology,  
New York Polyclinic Medical School and  
Hospital. 12mo, 210 pages, with 101 en-  
gravings. Cloth, \$1.00, net. Lea & Feb-  
iger, Publishers, Philadelphia and New  
York, 1909. (Lea's Series of Medical  
Epitomes. Edited by Victor C. Pedersen,  
M.D., New York.)

We have never been advocates of the condensed form of medical literature, but review of this little book shows us that it contains a great deal of accurate information.

One compelled to review this subject in brief time will be grateful to the author for telling so much in so few words.

**THE PHYSICIAN'S POCKET ACCOUNT BOOK.** By J. J. Taylor, M.D. Bound in full leather, 24 pages of practical instructions for physicians, 216 pages of accounts. Price \$1.00 per copy; published by The Medical Council, 4105 Walnut St., Philadelphia, Pennsylvania.

The book contains 24 pages of business instructions for physicians, under the headings of "Importance of a due bill," "Fees," "Billing and collecting," "Cautions," "Statute of limitations," "Form of wills," "Dying declarations," "Saving and investing," "Instant treatment of poisoning," etc. It also contains an average fee bill. The book contains 216 pages for accounts, of which eight pages are devoted to alphabetic index; 146 pages are devoted to regular accounts, 32 pages to short accounts, 24 pages to cash accounts, and eight pages to birth, death and vaccination records.

**VISITING NURSING IN THE UNITED STATES,** containing a directory of the Organizations employing Trained Visiting Nurses, with Chapters on the Principles, Organization and Methods of Administration of such work. By Ysabella Waters, Henry Street (Nurses') Settlement, New York City. Cloth 8 vo. 357 pages. Price post-paid \$1.25. Charities Publication Committee, 105 East 22nd St., New York City.

The author, Miss Waters, is an associate of Miss Lillian D. Wald in the famous Henry Street (Nurses') Settlement on the East Side of New York. Among the interesting features of the book are pictures and a full description of the visiting nurse's bag invented at the Henry Street Settlement. The book forms a convincing argument for nursing and educating in their homes some of the sick who will not or cannot go to the hospitals. Miss Waters brought to her book not only the scientific judgment of the trained nurse, but the breadth of view and clear appreciation of social values which come from long experience as a settlement worker on the East Side of New York.

Just fifty years ago the first visiting nurse started her ministrations to the

sick poor in Liverpool, England. The growth of the movement has been remarkable. In the United States alone there are now 566 visiting nurse associations with a total staff of 1413 nurses. In the past year 112 new organizations were formed. A description of visiting nursing, with a history, a chapter on principles, and a directory of all visiting nursing organizations in the United States.

**A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE.** By Arthur R. Edwards, M.D., Professor of the Principles and Practice of Medicine and Clinical Medicine in the Northwestern University Medical School, Chicago. New (second) edition, thoroughly revised. Octavo, 1246 pages, with 100 engravings and 21 full-page plates in colors and monochrome. Cloth, \$5.50, net; leather, \$6.50, net. Lea & Febiger, Philadelphia and New York, 1909.

This second edition is an anomaly in medical book-making in that by careful revision and rewriting a great deal of new matter has been added and through watchfulness for both brevity and clearness the volume reduced by sixty pages, a result much to be commended and one that should be followed by other authors in their revisions whenever possible. As an evidence that he believes that the border lines of surgery and medicine now overlap, and that the practitioner, internist and surgeon must be familiar with the provinces of each other, this book has introduced surgical indications and results.

It is a happy change indeed in the usual make-up of books on the so-called Principles and Practice of Medicine.

The best surgeon is the best physician, and curiously he is the best physician who knows enough surgery to recognize surgical indications. This book will aid the latter very much, as, for example, the few pages devoted to septic infections, while all too short, are the best that I know of in works of this sort.

We have not been as fortunate as the author, who says that Kartulis's method



of injecting one-half per cent of tannic acid, using as much as the bowel will tolerate and retain, has been most successful in amebic dysentery. He says that two or three injections are usually sufficient. Certainly this is not our experience here in California of tropic dysentery, of which we see considerable since the country has acquired tropical dependencies.

The chapters on syphilis and tuberculosis are notably full and valuable, as they occupy one hundred pages of the book. In the article on syphilis we regret to say that no mention is made of Wasserman's reaction and Nogochi's modification of the same; we also regret to note that Colles law still finds a place in the text, with, however, the modifying statement that "some exceptions exist."

The more recent methods of diagnosing tuberculosis are described much more accurately and satisfactorily than those of syphilis.

We agree with the author that as yet tuberculin therapy is "a chaos of personal impressions."

Section II, Diseases of the Circulation, is comprised in one hundred and five pages. It is well arranged and carefully prepared.

The diagram showing the size and shape of the heart in the various valvular lesions and in effusive pericarditis, the location of the murmurs and the direction of the propagation is very graphic and of great help to the student.

Section III is devoted to the respiratory tract. It, too, is voluminous and well prepared.

Interstitial Emphysema, pages 497 and 552, does not appear in the index.

Section IV is Diseases of the Digestive Tract.

Angina Ludovici is dismissed in fourteen and a half lines. This is not desirable.

The advice that hypertrophied tonsils should be removed by the galvanic cau-

tery (in italics) seems rather dogmatic. Very few surgeons nowadays remove tonsils in that manner.

In the very good section devoted to diseases of the stomach there is a curious lack of mention of the work of American observers. Practically all the names are those of foreigners.

The author's experience in gastric diseases justifies, he thinks, the following conclusions: (1) Fresh ulcers always and (2) chronic ulcers in half the instances belong to internal medicine; (3) half the inveterate cases respond to medical treatment; (4) most of the cases with "chronic dyspepsia" and almost none of the cases with hemorrhage call for surgical interference.

These conclusions are extremely interesting even if we cannot unqualifiedly endorse them all. I feel like saying with Charles Lamb: "I wish I could be as sure of anything as Tom McCauly is of everything."

The important condition known as colectasia (dilatation of the colon) should receive fuller consideration, particularly in association with coloptosis; only two pages are allotted to the entire subject.

The reviewer absolutely agrees with the author's statement that latency of gallstones is much less common than is generally stated (Kehr, Riedel and Paulson, 95 per cent of cases of gallstones have no symptoms) and that gastric symptoms are exceedingly common.

The author believes that gallstones should be operated upon when recognized, thus saving time, suffering and danger. Is that not a sane statement and does it not seem good in a textbook on medicine?

We who see the cases on the operating table know how much suffering and misery may be saved by an early operation and how we may prevent the grave complication of perforation, cholera and carcinoma; unfortunately

universal application of early operation in general practice is absolutely impossible; it is also impossible to accomplish the passage of all the stones by medical means.

This entire Section IV is the best that I know of on diseases of the digestive tract appearing as a section in any book on the practice of medicine.

Space forbids a further consideration of this very creditable volume. It is

very evidently the product of an experienced thinker and a tireless worker. Particular attention has been paid to therapeutic measures. All classes of readers, students, physicians and surgeons will find the book of great value.

A careless piece of proofreading appears on page 217, nine lines from the top of the page.

WILLIAM A. EDWARDS.

## MISCELLANEOUS—THERAPEUTICAL HINTS

### RABIES IN THE LABORATORY

J. B. Rucker, Philadelphia (*Journal A. M. A.*, July 25th) has used the smear method of Williams and Lowden in the examination of thirteen cases for the Negri bodies, and described it as follows: A small piece of gray matter of the brain excised and placed on a clean slide near one end. The cut should be at right angles to the surface, only a thin piece being taken in order to avoid the white matter as much as possible. A clean cover-glass is placed over the tissue and pressed down with the thumb until it is thinly spread out, and with even pressure the cover-glass is drawn almost to the other end of the slide. A little practice will enable one to thus produce a thin, even film of tissue. He used both the modified Giemsa stain and also the modified Van Gieson stain as used by Williams and Lowden. The details of his thirteen examinations are briefly given, and he concludes, from his experience, that the smear method is preferable to all other methods, because: 1. It is much simpler than any other, on account of the extreme facility with which the smears may be made and stained. 2. It is much shorter than any other, requiring only from fifteen minutes to three hours. 3. In the smear method the Negri bodies appear very distinctly,

and their minute structure is brought out very clearly. 4. The smear method is absolutely reliable.

STARCH DIGESTION IN BABIES.—A diastasic ferment is secreted by the salivary glands and pancreas of new-born infants and even before birth. Its amount and activity are slight in the first few weeks of life and after that rapidly increase. The glands, notably the pancreas, can be trained by means of a starch diet to the secretion of an increased amount of the amylolytic ferment. There is no inherent reason why this training should not be begun shortly after birth in the case of the bottle-fed infants instead of waiting until the child has attained the age of six months, as so commonly advised on purely theoretical grounds. Practical experience has shown that the usual barley water contains about 2 per cent. of starch. If mixed with an equal quantity of milk there will be only 1 per cent. of starch in the mixture. Such an amount is non-injurious and almost certainly is beneficial, as it encourages the growth of lactic acid. These organisms are of undoubted advantage in the prevention of the growth of proteolytic bacteria.

If a starchy food is used in the first two weeks of life it is advisable to

begin with a milk mixture which will not contain more than 0.5 per cent. of starch and to gradually increase the amount as the child grows older. Indeed, at any age when a starchy food is first given it should be in very weak solution and slowly strengthened up to as much as 3 to 5 per cent. If the stools become very acid or if they give a distinct starch reaction, the percentage of starch in the diet must be reduced. Special care must be paid to these considerations in the first two months of life because of the deficiency of salivary secretion. Further investigations may possibly show that this is a point of little importance as the pancreatic secretion may be sufficient in quantity and activity. The evil effects of starch in early life are due to (a) excess; (b) its administration in the form of a more or less insoluble emulsion instead of a soluble food; and (c) the substitution of starch for the necessary protein, fat and salts. In other words, the mischief results from deficiency of necessary proximate principles of diet rather than from the presence of starch.

In pathology laboratory work, Dr— writes: "I have discarded altogether the use of CO<sub>2</sub> and ether as mediums for freezing specimens in making sections. I use the ordinary microtome and place a small section of the tissue to be examined on a block used for that purpose, which is placed in position for cutting in the microtome. I then throw a fine spray of Kelene (Ethyl Chloride) on the tissue, which is frozen in two seconds hard enough to get a beautiful section. The whole procedure does not take over two minutes and but a very small amount of Ethyl Chloride.

"It is much more rapid, and no additional microtome is required, as in the usual case."

Glass Automatic Spraying Tubes avoid all waste of material and insure absolute purity.

## "Catgut Economy"

lies not in price but in quality and safety. The surgeon who uses

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not only protects his patient but himself also. Such protection in sterility, tensile strength and resistance to absorption as is offered by "Van Horn" Sutures and Ligatures, is economy in its highest sense—the economy of catgut insurance.

Let us tell you what the "Van Horn-METHOD" of sterilization means to the surgeon.

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("Kelene" requires no steam valve for discharge. Simply press the lever and the automatic sprayer will do the rest. Glass tubes alone insure absolute purity.— Fries Bros., New York.

Battle & Co., of St. Louis, have just issued No. 11 of their series of charts on dislocations. This series forms a most valuable and interesting addition to any physician's library. They will be sent you free of charge on application, and back numbers will also be supplied. If you have missed any of these numbers, better write Battle & Co. for them before the supply is exhausted.

In the prisons of Bengal, India, tuberculosis kills about two prisoners in every one hundred.



### PERCUSSION OF THE LUNGS.

Dayton states that there is no fixed note corresponding with the term pulmonary resonance; but each individual chest has its own standard tone which should be determined before drawing conclusions as to the existence of pathological conditions. In comparing two tones, the ear more readily recognizes a change from normal pulmonary to impaired resonance than a corresponding increase of resonance from impaired to pulmonary. In simply comparing the notes over symmetrical points on the two sides of the chest, an observer may easily overlook symmetrical impairment of resonance or slight impairment on one side as contrasted with more marked dullness on the other. It is, therefore, important also to percuss each lung independently, especially in cases in which one lung is obviously abnormal. It is of particular value, in order to determine the limits of a pulmonary lesion, to find some portion of the lung over which the tone may be considered the standard pulmonary resonance for the individual chest, and then to percuss the chest both upward and downward from the site of such a normal resonance, so as to approach the dull areas from the normal, whether the former are at the apices or at the bases.—*New York Medical Journal*.

During 1909 the deaths of 2,199 physicians in the United States and Canada were noted in *The Journal*. On the estimate of 135,000 practitioners, this is equivalent to a death rate of 16.29 per 1,000. The annual death rates as recorded in the previous seven years were as follows: 1908, 17.39; 1907, 16.1; 1906, 17.2; 1905, 16.36; 1904, 17.14; 1903, 13.73; and 1902, 14.74. For the last six years, therefore, there has been only a slight variation in the mortality rate. The age at death varied from 22 to 100, with an average of 59

years, 5 months and 29 days. The number of years of practice varied from one to seventy-nine, the average being 31 years, 6 months and 22 days. The chief death causes were, in the order named: heart disease, cerebral hemorrhage, violence, pneumonia, nephritis and senile debility.—*Journal A. M. A.*

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Adrenalin Chloride Solution is now being marketed in hermetically sealed glass containers of 1 cubic centimeter capacity. "Adrenalin Ampoule" is the name used to designate the new package, and the solution is of the strength of 1 to 10,000 (one part Adrenalin chloride to 10,000 parts physiologic salt solution). In their announcement of the ampoule, Park, Davis & Co. have this to say:

"Adrenalin Chloride Solution has become a necessity in medical and surgical practice. The most powerful of astringents and hemostatics, it lends itself to many practical uses and at little risk of injury in reasonably careful hands. Since the time of its introduction it has been marketed in ounce vials, and of the strength of 1:1000. Experience has shown, however, that a weaker solution is much more frequently required than the "full strength;" and while it is generally an easy matter to dilute with water or normal saline solution, in certain emergencies an already fully diluted preparation is to be preferred. While the danger of deterioration from occasionally opening a vial containing a solution of Adrenalin Chloride is not great, still, in consideration of the fact that a dose is needed now and then for hypodermatic injection, it is believed that the small hermetically sealed package will be welcomed because of its greater convenience and security."

As will be apparent from the foregoing, the Adrenalin Ampoule is intended for hypodermatic use. It should be of great value in such emergencies as shock, collapse, hemorrhage, asthma, etc., or where prompt heart-stimulation is desired.

### PREVENTION OF TUBERCULOSIS.

The Newfoundland Society for the Prevention of Tuberculosis is carrying on a vigorous and necessary campaign this year in the island. The death rate from the disease in Newfoundland is very large. About one in every five of the total population dies of it, and, what is worse, in the last six years the death rate, which is stationary or decreasing elsewhere, has increased about 50 per cent. Such a state of affairs calls loudly for a remedy, and the Society for the Prevention of Tuberculosis has called the forces of society against the common enemy. As in too

# HYDROLEINE

An emulsion of cod-liver oil after a modification of the formula and process devised by H. C. Bartlett, Ph. D., F. C. S., and G. Overend Drewry, M. D., M. R. C. S., London, England.

STABLE

ETHICAL

## Distinctively Palatable Exceptionally Digestible

Hydroleine is simply pure, fresh, cod-liver oil thoroughly emulsified, and rendered exceptionally digestible and palatable. Its freedom from medicinal admixtures admits of its use in *all* cases in which cod-liver oil is indicated. The average adult dose is two teaspoonfuls. Sold by druggists. Sample with literature will be sent *gratis* on request.

THE CHARLES N. CRITTENTON CO.  
115 FULTON ST., NEW YORK.

many places in Canada, fresh air seems to be dreaded in Newfoundland, and the people spend the long winter closely housed without oxygen. The government of Newfoundland has given the campaign a splendid start. It has made a grant of money sufficient to bring to St. Johns all the teachers of the island to attend a teachers' tuberculosis convention, so that every teacher in the colony will be a leader in the educational campaign.

### WHAT'S IN A NAME?

Joe, a Frenchman, came into a doctor's office one night, very much excited, and wished the doctor to come at once and see his wife, who had been taken suddenly and severely ill. The doctor asked him what the trouble was, and

he answered. "Bobsled come quick, she got bob-sled, awful sick, come quick."

"She's got what?" "She got bob-sled come quick, quick."

So the doctor, seeing he could find out nothing from Joe, started at once, saw the wife, relieved her and came out in the kitchen, where Joe sat. "Joe, you idiot, what did you tell me your wife had?" "Why bob-sled—bob-sled, that's what the weeman all say." "You chump, she had a miscarriage!"

"Yes, that's it, miscarriage—bob-sleigh. I knew it was some kind of a wagon."—C. L. Infield.

As an aid in the feeding of infants the use of the addition of the citrate or soda to cow's milk has taken an enviable position. One grain to an ounce of milk.

### CLINICAL SIGNIFICANCE OF GLYCOSURIA IN PREGNANCY.

Williams (*American Journal of Medical Science*) concludes:

1. A positive reaction with Fehling's solution during pregnancy does not necessarily indicate the existence of diabetes, but is usually due to lactosuria, or to transient, alimentary or recurrent glycosuria.

2. In such cases it is imperative to determine whether the sugar occurs as lactose or glucose, as lactosuria is without clinical significance and is probably associated with premature activity of the breasts.

3. The significance of glycosuria is not so clear. If alimentary in character, it may be regarded with impunity. Otherwise, it may be of the transient or recurrent variety, or may indicate the existence of true diabetes.

4. If the glycosuria appears late in pregnancy, does not exceed 2 per cent. in amount and is not accompanied by symptoms, it is probably transient and may disappear until the end of pregnancy. In either event it is usually of slight clinical significance, and merely indicates that the patient should be carefully watched.

5. If the sugar appears early in pregnancy and in large amounts, the condition is more serious, as it may be impossible to make a positive diagnosis until after delivery, when the condition disappears in glycosuria, but persists in diabetic cases.

6. Pregnancy may occur in diabetic women, or diabetes may become manifest during pregnancy. Either is a serious complication, although the prognosis is not so alarming as is frequently stated; many patients do perfectly well, while a smaller proportion die in coma or collapse at the end of pregnancy, or during or shortly after labor.

7. If the output of sugar is large and cannot be controlled, or at least markedly diminished by suitable die-

tetic and medicinal treatment, the induction of abortion or premature labor is indicated even in the absence of serious symptoms, and much more so when they are present.—*Medical Review of Reviews*.

### SYMPTOMS SIMULATING APPENDICITIS IN PNEUMONIA.

Dr. H. Bepnecke (*Mediz. Klinik*) has met with a number of cases in which in the course of a pneumonia symptoms pointing to an appendicitis of such intensity occurred that an operation was undertaken, which, however, revealed perfectly normal conditions. There is, therefore, danger that a not inconsiderable number of persons suffering with pneumonia might be subjected to needless surgical intervention. In the last three years in the Medical University Clinic of Jena, peritonitic symptoms have been observed in twenty-one cases of pneumonia, the pain being either diffused or localized to the cecal region, and frequently situated in an area below the navel and to the right. In three cases which have come under his observation, symptoms of perforation peritonitis were present. An operation was not done, as the true condition was recognized in time. It is probable that the existing abdominal pain and tension were due to irrigation of the diaphragm, and the vomiting to the pneumonia.—*International Journal of Surgery*.

The traveling man's wife thought her husband was the most forgetful, for he would often start out to see his customers and forget his sample case and, therefore, travel miles for nothing.

"Well," said the doctor's wife, "my husband beats that. He came home the other day and patted me on the cheek and said, 'I believe I have seen you before, little girl. What is your name?' —*Tit-Bits*.



# Cleanse the Blood and Keep it Circulating

Therein lies the essence of the successful treatment of pneumonia.

The phagocytes are the scavengers of the blood, but unless the affected part receives the full amount of the normal flow with its opsonins, resisting power is lost. In pneumonia it is necessary to either increase the opsonic index of the blood, so that the small amount reaching the congested lungs may be of normal opsonic value, or dilate the vessels and let the blood freely circulate, carrying the phagocytes into the lungs.

Heat is the best dilator of the blood-vessels, and an antiseptic poultice is the best agent for conveying moist heat.

*Antiphlogistine*  
(Inflammation's  
Antidote)

offers an ideal method for the application of moist heat. It will keep the blood circulating because of its action upon the sympathetic nervous system, which controls the circulation.

Schaffer, of Stuttgart, in his last treatise on the "Influence of Hot Air upon Inflammation," says: "Dry or wet hot compresses are more effective than hot air, as in Bier's method. Local warmth proved an excellent means of securing arterial dilation and accelerated circulation."

**Free Circulation + Perfect Elimination**  
**= Restoration to Normal**

In Pneumonia, Antiphlogistine should be applied hot and thick over the thoracic walls (front, sides and back) and covered with a cotton-lined cheese cloth jacket.

Bronchitis, Pleurisy and Croup have a determined antagonist in Antiphlogistine. It must always be applied at least  $\frac{1}{8}$  inch thick, and as hot as can be borne comfortably.

**The Denver Chemical Mfg. Co.**  
**NEW YORK**

## TO A SKELETON.

Behold that ruin! 'Twas a skull  
Once of the Ethereal Spirit full.  
This narrow cell was Life's retreat,  
This space was thought's mysterious  
seat.

What beauteous visions filled this spot!  
What dreams of pleasure long forgot!  
Nor hope, nor joy, nor love, nor fear,  
Have left one trace of record here.

Beneath this mouldering canopy  
Once shone the bright and busy eye;  
But start not at the dismal void—  
If social love that eye employed,  
If with no lawless fire it gleamed,  
But through the dews of kindness  
beamed,  
That eye shall be forever bright  
When stars and sun are sunk in night.

Within this hallow cavern hung  
The ready, swift and tuneful tongue;  
If falsehood's honey it disdained  
And when it could not praise, was  
chained;

If bold in Virtue's cause it spoke,  
Yet gentle concord never broke—  
This silent tongue shall plead for thee  
When time unveils Eternity.

Say, did these fingers delve the mine?  
Or with the envied rubies shine?  
To hew the rock or wear the gem  
Can little now avail to them.  
But if the page of truth they sought,  
Or comfort to the mourner brought,  
These hands a richer meed shall claim  
Than all that wait on wealth or fame.

Avails it whether bare or shod  
These feet the paths of duty trod?  
If from the bowers of Ease they fled,  
To seek Affliction's humble shed;  
If Grandeur's guilty bribe they spurned,  
And home to Virtue's cot returned,  
These feet with Angel's wings shall vie  
And tread the palace of the sky.

—Unidentified.

## THE CHILDREN'S FRIEND.

Dr. C., a distinguished physician of Boston, was on his way to Denver to transact some important business. During the afternoon he noticed, in the opposite section of the Pullman, a sweet-faced, tired appearing woman traveling with four small children. Being fond of children and feeling sorry for the mother, he soon made friends with the little ones.

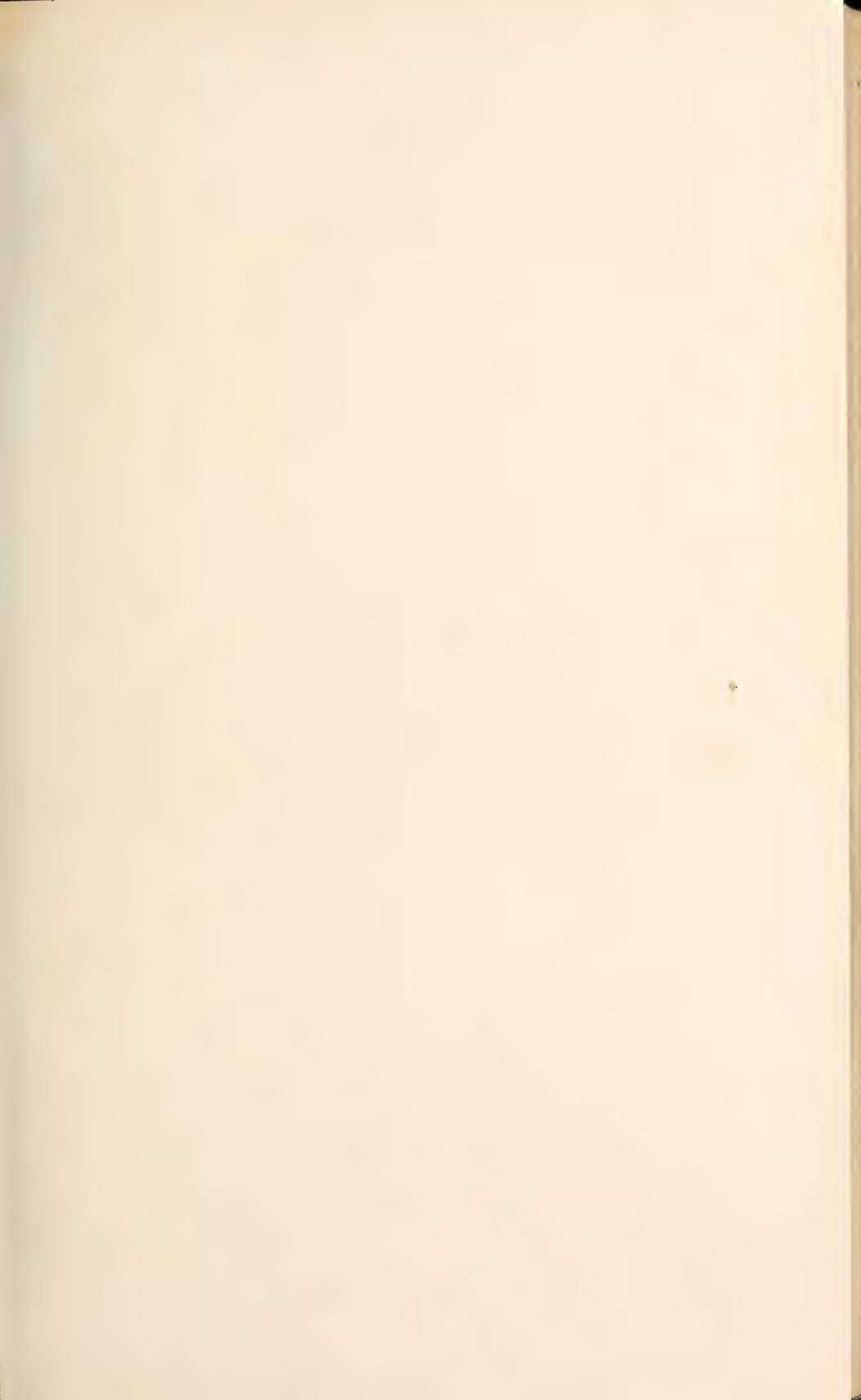
Early the next morning he heard their eager questions and the patient "Yes, dear," of the mother as she tried to dress them, and looking out he saw a small white foot protruding beyond the opposite curtain. Reaching across the aisle, he took hold of the large toe and began to recite: "This little pig went to market; this little pig stayed at home; this little pig had roast beef; this little pig had none; this little pig cried wee, wee, all the way home." The foot was suddenly withdrawn and a cold, quiet voice said: "That is quite sufficient, thank you."

Dr. C. hastily withdrew to the smoker, where he remained until the train arrived in Denver.—*Good Housekeeping*.

Tuberculosis among the insane is very prevalent. The lowest estimates show that 5 per cent of all the inmates of hospitals for the insane in the United States have tuberculosis, while in some cases the rate is over 20 per cent.

According to United States consular reports, the tuberculosis death rate is twice as large in Syria and Turkey as it is in the United States. There is only one special hospital for this disease in the entire Ottoman Empire.

The death rate from tuberculosis among the Chinese residents of the United States is 658.5, and among the Japanese 239 per 100,000 living, while among the white population of the country the rate is 173.







MR. CHRISTOPHER H. HALL, M.D.

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Editor,  
DR. WALTER LINDLEY.

Associate Editors,  
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Assistant Editors,  
DR. H. BERT. ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW  
and DR. F. M. POTTENGER.

## ON THE APPLICATION OF THE WASSERMANN REACTION, IN GENERAL MEDICINE, BASED UPON 968 EXAMINATIONS, WITH SPECIAL REFERENCE TO THE BLOOD OF THE INSANE.\*

BY RALPH C. MATSON, M.D., PORTLAND, OREGON, BACTERIOLOGIST, STATE AND CITY BOARDS OF HEALTH, LECTURER ON BACTERIOLOGY, MEDICAL DEPARTMENT OF UNIVERSITY OF OREGON AND NORTH PACIFIC DENTAL COLLEGE.

There is probably no disease wherein so many important discoveries have been made in recent years as in syphilis, and, excepting tuberculosis, probably no other disease is more important from an economic standpoint.

Since the important discovery of the spirochete pallidum by Hoffman and Schaudinn in May, '05,<sup>1</sup> our knowledge of syphilis has rapidly increased.

Metchnikoff and Roux<sup>2</sup> demonstrated the susceptibility of anthropoid apes to syphilis and later passed the disease from ape to monkey, monkey to monkey and monkey to man, when after five generations, only a paucity developed, followed by no secondaries, and gives promise of a prophylactic serum.

Finger and Landsteiner transmitted the infection from animal to animal through forty-five different monkeys, and Neisser produced the disease in

most of fifty-three different species of monkeys inoculated.

The spirochete has been transplanted from generation to generation on rabbits' cornea and at last it has been cultivated artificially.

We have found that gumma, formerly regarded as non-infectious, contain virulent spirochetes and we now know the disease is transmissible in all stages.

Experiment has shown that the virus lives but a few hours outside of the body, and Metchnikoff has proven that it can be destroyed and syphilis avoided by the application of a 33 per cent. calomel ointment massaged in at the sight of inoculation.

The diagnosis of the disease was, of course, very much simplified by the discovery of the germ, especially so, after the value of the dark ground illumination was recognized. This, however,

\*Read before the Southern California Medical Society, Los Angeles, December 2, 1909.

could only be applied to manifest lesions, which were usually cases offering the least difficulty in diagnosis, and in latent or visceral syphilis the method would not apply at all.

Perhaps the most important advance has been made in the serology of syphilis. This we owe to the Wassermann. Neisser and Bruck,<sup>3</sup> who applied the technique of the well-known Bordet and Gengou phenomenon of complement fixation, to determine the presence of syphilitic antibodies in a given specimen of blood.

Since Wassermann's discovery an enormous amount of work has been done on the serum diagnosis, and like other laboratory methods of diagnosis, it has had its share of both criticism and praise. No sooner had Wassermann announced his method than workers began to modify and simplify it so as to place it within reach of the general practitioner, until now one is confronted with at least eight different methods of sero-diagnosis based on complement fixation and a dozen other precipitation tests.

The scientific foundation originally claimed by Wassermann was soon lost when Kraus, Volk, Marie and Levaditi found they could obtain a reaction by using normal liver extract instead of syphilitic, as antigen, and argued the test was not specific.

Fleishmann,<sup>4</sup> Plaut, Michaelis,<sup>5</sup> Landsteiner, Braun and Weil,<sup>6</sup> confirmed this observation, which clearly proved that the antigen was not the spirochete pallida or its products, and upon study, Wassermann<sup>7</sup> found alcoholic solutions of syphilitic livers contained the active substances.

Then Landsteiner, Porges, Meyer,<sup>8</sup> Levaditi and Yamanuchi<sup>9</sup> showed that the active substances in both syphilitic and normal livers of man and the lower animals is soluble in alcohol, unlike true antigens, suggesting lipoids. After it was shown that the reaction did not de-

pend upon the syphilitic substances in the liver but upon the lipoids which are normally present and increased under the influence of the disease, and owing to the difficulty of securing satisfactory syphilitic livers, experimentors attempted to replace it by using substances of known chemical combinations, as antigen. Various lipoids, as lecithin, cholesterol, oleate, taurocholate and glycocholate of soda have been used with varying degrees of success. The alcoholic solutions of guinea pig and ox heart have also been recommended for this purpose.

Owing to the still complicated technique and the difficulty of getting material which prevented many from using it, efforts were made to modify the technique further by the use of an anti-human hemolytic system instead of anti-sheep, but so far all of these except Noguchi's modification, without success.

Bauer's method<sup>10</sup> depends upon the fact that normal sera possess anti-sheep amboceptor and he does not use a foreign hemolytic system. Owing to the variable amount of natural anti-sheep amboceptor in human serum, the method is not only unreliable but inconvenient.

Detre's and v. Brezovsky's method,<sup>11</sup> while quite reliable, the necessity of washed horse corpuscles interferes with its usefulness.

Tschernognbow<sup>12</sup> utilizes the complement contained in the patient's own blood to reactivate the anti-human amboceptor, but since the complement varies in different specimens of human blood, the method is very unreliable, according to Boas<sup>13</sup> and Noguchi.<sup>14</sup> Hecht<sup>15</sup> uses natural human amboceptor and complement, and sheep's corpuscles. However, since these two former substances are so extremely variable the test would be unreliable without special standardization of the serum.



Alexander Fleming<sup>16</sup> describes a very ingenious method—a modified Hecht—and he claims results as good as the more complicated Wassermann.

Noguchi<sup>17</sup> describes a simple method which seems the most reliable of all modifications. He uses antihuman hemolytic amboceptor from an immunized rabbit and human corpuscles. His objections to the Wassermann technique are on the grounds that some human sera are rich in antishoop amboceptor. He has found as high as twenty units of antishoop amboceptor in some specimens. He also found that 4 units of amboceptor prevents the detection of one unit of syphilitic antibody. Thus the negative Wassermann reactions are accounted for in the presence of certain syphilis.

Noguchi thinks his test can be used by any physician after securing the reagents. Commendable as it may appear and simple as it may seem, I do not think the method is so very easy and feel that more than a clinical laboratory experience is necessary in order to obtain reliable results, as many delicate principles are involved in the test.

Swift<sup>18</sup> concludes the Noguchi method is more sensitive than the Wassermann and may sometimes cause a positive reaction with non-specific sera, which is negative to the Wassermann.

Other methods, based on precipitation, have been devised, but seem to be of little value and positive in other diseases.

Thus Porges<sup>19</sup> obtained a reaction with lecithin. Fornet and Schereschewsky<sup>20</sup> mixed the blood of a florid syphilitic and a parasyphilitic, claiming a precipitate was due to precipitinogen contained in the florid syphilitic and precipitin in the parasyphilitic, and Klausner<sup>21</sup> was satisfied to use distilled water to which he added the suspected serum, believing a precipitate was evidence of syphilis.

However, recent researches of Kaus, Von Eisler and Stumme have shown

Porges' reaction equally positive in cancer and tuberculosis<sup>22</sup>, and Klausner's<sup>23</sup> reaction has no diagnostic value at all.

Most of these methods depend upon globulin precipitation. Noguchi<sup>24</sup> demonstrated an increase of globulin in syphilis by means of a precipitation method, using ammonia sulphate, but it is not pathognomonic, for the increase of globulin is seen in many other infective diseases.

Noguchi<sup>25</sup> thought an increase in protein in the spinal fluid of parasyphilis was diagnostic. He used for this purpose butyric acid and NaOH, but later found it in the other types of meningitis. The failure of the various precipitate reactions compels us to rely upon the complement deviation test. In spite of the attempts to simplify the original Wassermann technique, the mass of evidence points that his method, slightly modified, is the most reliable.

One of the former difficulties of the Wassermann method was in securing suitable antigen. Untreated livers were hard to obtain and the salt solution extract was very unstable. This in a measure was overcome by the use of alcoholic solutions of guinea-pig heart and ox heart. The alcoholic solution of guinea-pig heart was found extremely unreliable in our hands, but the alcoholic solution of ox heart has proved entirely satisfactory. We found variations from the specific liver extract by comparative tests.

Sachs suggests a mixture of antigens called A and B. For the reason that: A may be positive in some cases and B negative, in others B positive and A negative, but by mixing A and B he got a positive reaction in both cases. The time required to immunize the rabbit can be very much shortened by giving 15cc of a 50% suspension of sheep's corpuscles in salt solution at one injection, and killing in a week or ten days after testing the serum. In our work, we have adhered to the Wassermann tech-

nique in the first three hundred and since then have used ox heart as antigen, after comparative tests have demonstrated its reliability.

The Wassermann reaction is not entirely free from objections. It has been met with in some other diseases. However, there are so many possibilities of error in performing the test that reliance can be placed only upon the results obtained by well-trained workers.

The reaction in competent and conscientious hands has been found uniformly negative in an enormous number of presumably non-syphilitics suffering from other diseases, and there has been no well authenticated, positive reactions obtained in a healthy man. (Chart 1.)

In our examinations of 145 healthy people as controls, we did not obtain a single positive reaction.

A positive reaction is claimed to have been found in trypanosomiasis, framboesia, scarlet fever, leprosy, myxedema and cancer. The findings in the two former may be explained by their etiological resemblance to syphilis, being probably protozoan in origin, and the reaction found in the spinal fluid in scarlet fever is due to increased albuminoid substances which cause a mechanical fixation of complement.

Castelli<sup>26</sup> explains its presence in leprosy by assuming they were tuberculous replanted on syphilitic soil. The few positive reactions found in cancer have been in far advanced cases offering no difficulty in diagnosis, and here we can not eliminate the possibility of syphilis, hereditary or acquired, though the history is negative.

In nine cases of cancer examined by us, we obtained a single positive reaction, in a case of liver carcinoma, with icterus. The history was indefinite and bile may have been responsible for the reaction.

Positive reactions have been claimed in tuberculosis, even as high as 25%. I am inclined to doubt the accuracy of

such work. We have examined one hundred and fourteen (114) cases of different types and did not obtain a single positive reaction, except in one case, that of a woman who was also syphilitic. (Chart 1.)

Failure to get a history of infection or find clinical evidence does not mean the absence of syphilis. Frakel and Much obtained positive reactions in many cases giving no history or clinical evidence, but at autopsy always found a syphilitic process.

After consideration of the findings of Laser, who obtained anatomic evidence of syphilis in 9% of all men over 25 years of age coming to autopsy in Berlin, we may expect an occasional positive reaction in cases where syphilis can not be ascertained, for the disease may have been hereditary or acquired and the initial lesion may have escaped detection and the case remain latent for years, leaving no trace clinically or anatomically.

For practical purposes, the Wassermann reaction is sufficient, as positive reactions are found only with the serum of a syphilitic person.

Unfortunately the reverse is not true—that is: The absence of a reaction does not indicate freedom from syphilis, for we have all seen negative cases, which upon re-examination gave a positive reaction. I have seen two cases which were negative after the chancre had existed one week. In one case it was excised, hoping to prevent general infection. The patient developed secondaries and his blood gave a positive reaction. However, in spite of the few negative reactions in certain syphilis, the reaction is of very great importance and at once confirms the diagnosis of lues.

Formerly physicians waited weeks and sometimes months to confirm their diagnosis and in the meantime the organisms were disseminating throughout the entire system, forming metastases in all the organs, and according to the old

rule no treatment was given until the diagnosis was confirmed, which meant the treatment was commenced when the infection was generalized. By means of the test, we are frequently able to diagnose the case at once and begin treatment. If the reaction is negative and the lesions found to contain spirochetes, excision may prevent general infection, as Neisser has shown.

In diagnosis, the method is of great value when manifestations are present, being positive in 95% to 100% of all cases, so that in a given case, if the reaction is negative, it carries a very great weight against syphilis, and while a positive reaction means syphilis is present, it does not necessarily mean that the present pathological process is syphilitic. That must be determined upon other clinical data. Neisser<sup>28</sup> holds to the principle that every patient giving a positive reaction harbors spirochetes and requires treatment.

The reading of the reaction is important. A positive diagnosis should be made only when the reaction is strong. If partial and no history is obtained and mercury or the iodides not administered, it should be regarded as negative. However, if a specific history is obtained, it should be regarded as positive. A positive reaction is an index of constitutional disease, regardless of external manifestations.

To illustrate the value of the reaction as a diagnostic aid in cases giving little or no history or evidence of syphilis, but where syphilis might be an etiological factor, permit me to instance the following cases, wherein we have applied the test with satisfaction for differential purposes:

1. A surgeon in the Marine Hospital Service developed an ulcer on the finger, which seemed only the result of neglecting a slight abrasion, but refused to heal. The question was: Could it be syphilitic? He gave a positive reaction and later developed secondaries.

2. Six cases referred from laryngologists with ulcers on the glottis. Was the given case syphilitic, tuberculous or malignant? Four were Wassermann positive and benefited by treatment, two were negative. One of these was tuberculous and the other malignant.

3. An exanthema, occurring on a girl of 17 years, who had been raped and had given an indefinite history of a primary sclerosis: Was it secondary? Wassermann reaction was negative, proved to be varicella.

4. A woman, giving no syphilitic history, in stepping off a street car broke the right femur. It was set, later wired, the cast was taken off soon and without any violence the bone broken again. Wassermann test proved positive, the X-ray showed no callus at former fracture. Specific treatment was instituted, callus immediately formed, and the woman now has very good use of the leg. She had been previously operated upon for renal calculi; no stones were found; it was now recognized as a renal crisis in tabes. The husband of this woman gave a positive reaction after specific treatment and put an end to syphilitic cervical leptomeningitis. Eighteen years ago he thought he had a soft sore—this was three years before his marriage. They have only one healthy boy out of three healthy children born.

5. Cervical adenitis in a young man giving a specific history did not respond to mercury, was Wassermann negative, tuberculin positive, and tuberculin caused a rapid disappearance of glands.

6. Woman operated upon for hemorrhoids with no relief was Wassermann positive. Examination revealed ulcers on rectum which disappeared under mercurial treatment.

7. Woman giving syphilitic history had a mass in rectum which was diagnosed and treated as gumma. Wassermann reaction negative, operation and microscopical examination of mass revealed carcinoma.



8. Tumor of sternum. Was it malignant or specific? Wassermann reaction positive. Mercury caused marked reduction of growth, which later grew rapidly, and post-mortem revealed sarcoma in addition to syphilis.

9. Tumor of tongue was negative in Wassermann test, operation and microscopical examination revealed carcinoma.

10. Ulcer of tonsil and adenitis. Was it infected, malignant or specific? Wassermann negative, operation and section revealed carcinoma.

11. Bilateral hydrothorax. Aspiration did no good. Wassermann positive and antisyphilitic treatment brought about a cure.

12. A man treated for gastritis giving a very indefinite history of syphilis eighteen years ago, was Wassermann positive, recognized as a gastric crisis of tabes, four months later a typical tabetic.

13. Enlarged testicle. Was still thought to be tuberculous after one had already been removed. Wassermann positive. Mercury brought about a cure.

14. A young man with afternoon fever, progressive loss of weight and strength. Had typical signs of advanced pulmonary tuberculosis, raised 60 to 80 c.c. sputum in twenty-four hours which was T. B. Negative. He gave a positive Wassermann reaction and wonderful improvement followed antisyphilitic treatment, which suggests that all the work of Surgeon Barton L. Wright be checked up with the Wassermann reaction to determine how many of his cases are also syphilitic.

The foregoing are typical examples of the value of the test in clinical medicine.

F. Blumenthal and Rascher<sup>29</sup> found the reaction always negative until sixth or eighth week. Treatment may have influenced this.

Blaschko<sup>30</sup> found it positive before the roseola appeared.

McIntosh,<sup>31</sup> in twenty-seven cases of primary syphilis, obtained twenty posi-

tive reactions. The reaction was not well marked until the second week after the chancre appeared. (Chart II.)

In our series of twenty cases in the primary stage before the appearance of secondaries, all were positive but two, or 85%. One became positive upon the appearance of secondaries. We did not have an opportunity to re-examine the other. Thus, the reaction is of value to the syphilographer in determining between hard and soft sore. Once the reaction appears it usually continues into the late stages until influenced by treatment.

The reaction is unusual before the third week of the primary sore, and increases in frequency up to the appearance of the eruption, when 100% are positive. So in primary syphilis, the Wassermann reaction is not so valuable when absent.

In secondary syphilis with manifestations, from 95% to 100% are positive. The more definite the symptoms, the more intense the reaction. In fifty-five cases of secondary syphilis, we obtained fifty positive reactions, or 90%.

In tertiary syphilis the reaction is present in from 70% to 80% of all cases. In tertiary syphilis we obtained in twenty-seven cases twenty-two positive reactions, or 81%. Two of the negative cases had had the disease for twenty years, and all had been well treated.

In latent syphilis, 50% to 70% give positive reactions, depending upon whether early (80%) or late (50%) and how well treated. This is about the per cent. we would expect from the fact that post-mortems show 50% of syphilitics have old visceral lesions.

We obtained thirty positive reactions in forty-four cases of latent syphilis, or 68%.

Latent syphilis offers the greatest difficulty in diagnosis and is seldom recognized clinically. This is especially true in cases having slight or transient manifestations, or in cases denying in-

fection or those innocently infected. Fifty per cent. of syphilitics, who apparently are free from syphilis, show positive reactions years after. This corresponds with 50% of all syphilitics, showing old visceral lesions upon autopsy.

Leser<sup>32</sup> has shown 33% of syphilitics ultimately die of tuberculosis, paralysis or aortic aneurism. Undoubtedly this

tory or note, and the serum reaction should be resorted to.

In twenty-six cases of visceral syphilis we obtained twenty-three positive reactions, or 88%. We are indebted to Dr. Gustave Baar for twenty-one cases of visceral and latent syphilis. Nineteen were positive and two were negative. They were made up as follows: (Chart III.)

	Cases.	Positive.	Negative.	Syphilitic History.
Brain syphilis .....	3	3	0	positive in 3 cases (treated).
Meningeal syphilis .....	2	1	1	positive in 2 cases (1 well).
Latent syphilis .....	8	8	0	5 gave positive history.
Congenital syphilis .....	1	1	0	21 years of age.
Pancreas syphilis .....	1	1	0	no absolute history.
Pernicious anemia .....	1	1	0	positive history.
Hydrothorax .....	1	1	0	infection 20 years.
Heart syphilis .....	1	1	0	positive history.
Liver and kidney syphilis	2	2	0	1 gave positive history.
Rectum syphilis .....	1	1	0	positive history.
Arteriosclerosis .....	1	1	0	positive history.

enormous percentage could be reduced by recognition and appropriate treatment. The test clearly shows that the virus may remain active for years after the infection, even though there be no manifestations.

From the results of the Wassermann test, it is evident that visceral syphilis is much more common than we expected. That it is seldom recognized antemortem is shown by the findings of Leser at autopsy. Thirty cases of liver gumma had not been diagnosed, in fact, twenty-two had no clinical evidence of syphilis. Eight cases of cirrhosis had escaped detection; also nineteen cases of lung gumma, often tuberculous, remained unrecognized. Gumma in the heart, spleen and suprarenals, repeatedly escaped recognition.

Unlike gumma of the brain, which is easily recognized clinically, gumma of the internal organs are difficult because they interfere but little with the function of the organ and give rise to few or no symptoms, or as in the case of liver syphilis, it may simulate carcinoma, obstructive jaundice, and also often cholecystitis, here especially where a little fever is frequently present to further complicate matters.

Syphilis should always be considered in liver diseases, whether there be a his-

Syphilis as a factor in cardiac and vascular disease has long been established. Aneurism has always given the highest percentage of positive reactions and it is well to suspect syphilis in all cases of aneurism or aortic disease. Mescartitis retrahens, practically always syphilitic, is a condition never recognized clinically, until it has developed into an aortic aneurism of which it is responsible for four-fifths of all cases.

The importance of early recognition in these cases is easily apparent. The Wassermann reaction is the only means in hand of separating cardio-vascular lesions of syphilitic origin from others.

In the so-called parasymphilitic diseases and in the diagnosis of metasyphilitic and other nervous disorders, the Wassermann reaction is extremely valuable, especially in the differential diagnosis between neuresthenia, general paralysis and the various psychoses produced by alcohol, vascular lesions and other causes, or to distinguish between disseminated sclerosis and cerebrospinal syphilis, or between pressure symptoms due to brain tumor or gumma. It is of considerable satisfaction to the neurologist to be able to eliminate syphilis as an etiologic factor in cases coming under his supervision. (Chart IV.)

The importance of syphilis in the

psychic infirmities is indicated by our examination of 470 inmates of the Oregon State Insane Asylum. Nearly 20% gave positive reactions, while only 5% gave specific histories, and none presented visible or clinical manifestations. The coexistence of positive reactions in metasyphilitic diseases is striking. The reaction was positive in six cases of general paralysis and negative in three. The six positives gave a definite specific history, whereas no history of syphilis was obtained in the negative cases.

Nearly 15% of 51 cases of dementia precox were positive, while none gave a syphilitic history.

Sixteen per cent. of 151 cases of paranoia were positive.

Twenty-five per cent. of 40 cases of chronic mania were positive.

Twenty per cent. of 26 cases of chronic melancholia were positive.

Twenty per cent. of 62 cases of dementia were positive.

That general paralysis is the result of syphilis in almost every case, there can no longer be any doubt, for it was practically always given a positive reaction. The lower percentage of positives usually obtained in tabes is explained by assuming the syphilis may have long since been cured before the tabes developed, for it is a source of the process in the meninges which entails secondary degeneration in the nerve tracts, resulting in tabes. Both tabes and general paralysis may be looked upon as the result of poorly treated syphilis.

The statistics relating to the findings of the tabes vary somewhat. Leser<sup>33</sup> obtained 56% positive. Wassermann and Plaut got a positive reaction in 70%, and Nonne in 90%; Sachs and Castelli<sup>34</sup> 64.3 positive in tabes and 67.7 positive in general paralysis. In six cases of tabes, we obtained five positive reactions, or 83%.

The Wassermann reaction not only reveals the nature of the disease, if syphilis, but it proves as a guide for individualizing mercurial treatment.

It has shown the necessity of more energetic and individual treatment than has been the custom heretofore. From 47% to 57% of the cases discharged as cured are only half way to their goal and in reality are latent syphilitics.

The early administration of mercury may cause a disappearance of manifestations with little influence on the spirochetes, the organisms remaining latent for years, and upon favorable conditions renew their activity with reappearance of manifestations. It would not seem advisable to leave off treatment on one negative reaction. The test should be repeated.

A positive reaction may be made to disappear by energetic, specific treatment, and this sustains the conclusion that a positive reaction means active syphilis, even though there be no evidence, and speaks for renewal of treatment. Patients who have been well treated, give negative reactions, whereas those poorly treated give positive reactions years later, and these may be considered real candidates for tabes and paresis. The number of injections necessary to convert a positive reaction into a negative, varies with each patient and should be controlled by the blood examination. The persistence of a positive reaction in tabes remains little affected by treatment. A persistence of a positive reaction during the first year has little effect upon the prognosis.

Purckhaur<sup>35</sup> found in latent cases the reaction positive in 50% after one course of mercury, but after eight or more courses, 90% were negative. The more energetic the treatment the fewer the positive reactions.

Boas<sup>36</sup> states a positive reaction after systematic treatment is a precursor of a recurrence.

Lesser points out the necessity of more active treatment than has been customary. In only 35% of his cases was a positive reaction transferred to a negative under ordinary dosage.

In the determination of a cure, one



month at least should elapse after the administration of mercury before doing a Wassermann reaction, for after effectual treatment the Wassermann reaction may be negative. This must be borne in mind by physicians who apply the test for diagnostic purposes. Potassium iodide has little effect upon the reaction, but we have constantly observed the gradual disappearance of the reaction under the effectual mercurial treatment.

In respect to prognosis, the test is not conclusive. However, Blaschko<sup>37</sup> regards the persistence of the reaction in the first three years not to be taken as unfavorable. On the other hand, the disappearance of the reaction in the same time must not be taken as a favorable sign.

The prognostic importance is in the later stages when the persistence of a positive reaction must be looked upon as incomplete success or development of post-syphilitic affections.

It does not seem likely that one can judge the severity of the infection by the degree of the reaction, for the reaction varies considerably in the different cases without any uniformity.

Manifest cases usually give the reaction, and if no manifestations are present, we might be on a watchful alert for visceral lesions, if the positive persists.

No doubt many of the latent cases are really visceral syphilis or beginning involvement of the nervous system. The value of the reaction in a given case could only be determined by repeated examinations and comparisons. Whether or not the disease is transmissible during the period of negative reaction can not be stated at present, except in the first two or three weeks after the primary lesions appear, when the disease is transmissible and reaction frequently negative.

The immunity problem has been taken up with renewed vigor since the discovery of the Wassermann reaction. Formerly it was thought that, like some

other infectious diseases, one attack conferred immunity, and the substantial factors in this belief were the rarity of the so-called reinfection, and the failure to produce a typical chancre, by inoculation during the course of the disease. But Jonathan Hutchins (*Lancet* No. 4474-09) has collected 56 cases of reinfection in his own work.

Neisser<sup>38</sup> found that all animals which resisted further inoculation were still diseased, and, when killed, their organs were still infective and all cured animals were immediately susceptible. By means of Wassermann reaction, we have proved the same in man. I might mention here that Krafft Ebing failed to produce syphilis in 9 general paretics, giving no syphilitic history; they were inoculated from a typical hard chancre. Fingert, Landsteiner and Neisser show the apparent immunity is due to latent syphilis, and strictly speaking there is no immunity.

Our ideas of hereditary syphilis have also been considerably altered. Colles' law which held a mother might give birth to a syphilitic child without herself becoming infected does not hold good, for the test proves she is already diseased and is a latent syphilitic.

The test furthermore shows that the apparently healthy children of syphilitic mothers, thought to be immune, as claimed by Profetas' law, are also latent syphilitics.

K. Baisch<sup>39</sup> says the immune substances do not pass through the placenta from mother to child, or vice versa, and concludes the presence of the hemolysis hindering substance is dependent upon the presence of spirochetes in the organism. He found 80% of the cases of premature death and maceration of the child were due to syphilis. These mothers, even though they are clinically healthy, are truly syphilitic and require anti-syphilitic treatment.

#### CONCLUSION.

Our present conclusion as to the Wassermann reaction must be tentative, and

physicians should familiarize themselves sufficiently with the reaction to interpret intelligently the result.

We are in favor of the Wassermann technique slightly modified, when properly tested by the original method.

A positive reaction means active syphilis, irrespective of clinical manifestations. It may mean changes in the internal organs without recognizable external signs or symptoms, but teaches that there should be an exhibition of antisyphilitic treatment.

A persistent positive reaction, in spite of vigorous treatment, does not necessarily give a bad prognosis, although if no visible signs are present, we may expect visceral lesions or parasyphilis.

A partial reaction should be taken as negative, if found in an untreated case with no manifestations or history of infection; but positive if history of infection or manifestations are present and mercury has been taken within the previous month.

A negative reaction has many values.

If found in the first few weeks of suspected primary sore, it is meaningless. If found after three or four weeks and suspected manifestations are present, but energetic treatment has been given, it is of no value; but if no antisyphilitic treatment has been given, it is almost positive evidence against syphilis, but should be repeated.

A negative reaction, in any case, while mercurials are being taken is of questionable value. One month at least should elapse after leaving off mercury before a negative reaction is significant.

Modern hospitals should provide facilities for doing a Wassermann reaction on every patient entering, and municipal laboratories should be equipped to make examinations and give results to physicians on the same basis as the Widal reaction, that the worthy poor would not be deprived of a valuable test.

I have pleasure in recording my indebtedness to Dr. Frank McCauley for his valuable assistance in carrying out this work.

#### CHART I.

Controls made up of healthy blood and blood of individuals suffering from other diseases giving no history or evidence of syphilis.

	Number of Cases.	+	-
Healthy people .....	145		145
DISEASES—			
Tuberculosis, pulmonary .....	93	1*	92
Tuberculosis, adenitis .....	9	0	9
Tuberculosis, bones and joints.....	7	0	7
Tuberculosis, abdominal .....	2	0	2
Tuberculosis, testicle .....	2	0	2
Tuberculosis, kidney .....	1	0	1
Varicella .....	1	0	1
Typhoid fever .....	3	0	3
Tonsillitis .....	2	0	2
Carcinoma .....	9	1	8
Paralegia .....	1	0	1
Neuralgia .....	1	0	1
Optic atrophy .....	1	0	1
Neuresthenia .....	4	0	4
Cerebral hemorrhage .....	1	0	1
Simple anemia .....	1	0	1
Pernicious anemia .....	1	0	1
Aortic aneurysm .....	1	0	1
Skin diseases .....	4	0	4
Herpes prepucalis .....	1	0	1
Ulcer of glottis .....	4	0	4
Cirrhosis of the liver.....	2	0	2
Asthma .....	1	0	1
Other diseases .....	17	0	17
	314	2	312

\*Acknowledged syphilis with manifestations.

CHART II.

Results obtained in syphilis. (Para and Meta syphilis.)

	Number of Cases.	+	%	—	%	
Primary syphilis ....	20	17	85	3	15	In one positive case, the chancre appeared 70 days after intercourse.
Secondary syphilis...	55	50	90	5	10	
Tertiary syphilis....	27	22	81	5	19	In 2, diseases had existed 20 yrs. and all had been well treated.
Latent syphilis .....	44	30	68	14	32	
Visceral syphilis ....	26	23	88	3	12	One case was well treated.
Cerebral syphilis ....	3	3	100			
Spinal syphilis .....	2	1	50	1	50	
Hereditary syphilis...	1	1	100			
Tabs .....	6	5	83	1	17	
	184	152	80	32	20	

CHART III.

	Number of Cases.	+	%	+	%	Syphilitic History.	Unknown.	No.	Yes.
Dementia precox .....	51	7	14	44	86	2	49	..	1
Mental depression .....	1	..	..	1	..	..	..	..	..
Paranoia .....	151	24	16	127	84	16	132	3	..
Paranoia state .....	1	1	..	0	..	1	..	..	..
Epilepsy .....	11	2	19	9	81	1	9	1	..
Epileptic idiocy .....	2	0	..	2	100	..	2	..	..
Epileptic imbecility .....	2	1	50	1	50	..	2	..	..
Epileptic insanity .....	21	2	10	19	90	..	21	..	..
Imbecility .....	26	4	16	22	84	2	24	..	..
Idiocy .....	4	0	..	4	100	..	4	..	..
General paresis .....	9	6	66	3	33	3	..	6	..
Paralysis agitans .....	2	0	..	2	100	1	1	..	..
Chronic chorea .....	1	1	..	0	..	..	1	..	..
Cerebral abscess .....	1	0	..	1	..	1	..	..	..
Cerebral hemorrhage .....	1	0	..	1	..	1	..	..	..
Cerebral syphilis .....	1	0	..	1	..	..	1	..	..
Morphinism .....	2	2	100	0	..	..	1	..	..
Tuberculosis .....	1	0	..	1	..	1	..	..	..
Lobar pneumonia .....	1	0	..	1	..	1	..	..	..
	289	50	..	239	..	31	246	12	..

CHART IV.

	Number of Cases.	+	%	+	%	Syphilitic History.	Unknown.	No.	Yes.
Paralytic .....	10	1	10	9	90	5	5	..	..
Paranoid hemiplegia .....	1	0	..	1	..	1	..	..	..
Ch. delusional insanity.....	1	0	..	1	..	..	..	..	..
Delusional insanity .....	5	2	40	3	60	1	1	3	..
Maniac depression insanity...	1	1	..	0	..	1	1	..	..
Chronic insanity .....	1	0	..	1	..	1	1	..	..
Alcoholic insanity .....	1	0	..	1	..	..	1	..	..
Hallucinary insanity .....	1	0	..	1	..	1	..	..	..
Melancholic insanity .....	4	0	..	4	100	..	3	1	..
Acute melancholia .....	1	0	..	1	..	..	1	..	..
Chronic melancholia .....	26	5	20	21	80	5	18	3	..
Recurrent mania .....	2	0	..	2	100	1	1	..	..
Acute mania .....	5	3	60	2	40	1	3	1	..
Chronic mania .....	40	11	28	29	72	2	36	2	..
Acute alcoholic mania.....	1	0	..	1	..	..	1	..	..
Hystero mania .....	1	0	..	1	..	..	1	..	..
Senility .....	7	2	20	5	71	5	2	..	..
Senile dementia .....	11	1	10	10	90	2	9	..	..
Dementia .....	62	12	20	50	80	5	56	1	..
	181	38	..	143	..	30	140	11	..

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## IMMUNITY AND TUBERCULOSIS.\*

BY W. WARNER WATKINS, PHOENIX, ARIZ.

This paper, as best it can, attempts three things:

(1) To state some of the principles of immunity as they have been studied by the writer.

(2) To make application of them in support of the following—namely, that there is such a thing as a relative immunity to tuberculosis, and that this is often acquired and often effective in preventing the disease, which belief is gradually gaining credence.

(3) To suggest, tentatively, that it is possible to produce artificially, in a healthy organism, an increased specific resistance to tuberculosis.

I. Mention of immunity usually carries the idea of vast, unexplored fields, with here and there an oasis of fact or a faint pathway marked by some original experimenter. The subject is so big, so theoretical, delves so minutely into biology, histology and pathology, that most of us know only the rudiments. It is fortunate for us that a knowledge of the broadest principles, only, of immunity is necessary for in-

telligent application of those things whose value has been proven.

Immunity is simply adaptation. Paraphrasing Adami on adaptation: Continued existence of life has been, and is, contingent upon continued adaptation. Environment suitable for individuals of one species may be fatal to those of another; all are primarily of common origin, but, during evolution, various species have been subjected to different environments and, by reacting thereto, have undergone modification; that is, have become adapted or immune to certain influences which, without such modification, would have brought about extinction. Any agent capable of disturbing the molecular activity of living matter causes to develop in that matter a relative immunity to the destructive action of this agent; that is, this living matter becomes adapted to such disturbance and gains the capacity to withstand it, up to a certain limit, without being destroyed. There are limits beyond which the action of any agent becomes detrimental; and further, as re-

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gards any particular agent, there are different grades of reaction exhibited not only by different species but by different individuals of the same species. This we call individual *susceptibility*.

Upon this broad principle all ideas of immunity, whether passive or active, racial, general or individual, are based.

Adami states in another chapter of his pathology that all the theories regarding immunity and the factors which produce it, from Metchnikoff's phagocytosis to Ehrlich's complicated side-chains, though apparently conflicting, are really in harmony, simply emphasizing certain particulars of the same phenomenon. If this is true—and I am accepting it—the simplest and least technical basis the busy practitioner can work on the better for him, if he has the assurance that he is on the mainland of fact. So that if we center the entire process around the white cell we will not only be safe, but our practical results will be as certain as if we mastered and attempted to utilize all the complex theories regarding immunity.

We know that it is the presence of the germ within the cell protoplasm which excites the manufacture of antibodies and naturally, then, that the cells which attack and ingest the germs produce the antitoxins also; also, knowing that the cells which attack the germs are the phagocytes or white cells, for all practical purposes, we may proceed upon the principle that both the antitoxic and the bacteriacidal defenses of the body are furnished by the white cells.

There isn't time to say more about immunity in general. But it should be borne in mind that passive immunity is adaptation, pure and simple; that the phenomenon of aggressive resistance on the part of the white cells characterizes active immunity; and that the process of a localized inflammation exhibits most of the phenomena of immunity formation. An intimate study of such a process with this in mind will give

a clearer understanding of the basic principles of immunity.

II. In making application of these principles to tuberculosis in support of the belief that there is such a thing as immunity to this disease, it must be understood that the argument is on hypotheses aiming at a principle and no particular application is recommended.

It is the commonly held idea that one attack of tuberculosis leaves the victim more susceptible to subsequent infection. *There is abundant ground for the contrary belief.* There is a great mass of evidence to support the belief that an attack of tuberculosis *positively cured* confers a relative immunity to subsequent infection more often than otherwise. In considering this point recognition must be taken only of certain cures, not of arrested cases in whom recurrences are so common.

Further, that tuberculosis which has been certainly cured in a parent, rather than predisposing the offspring to infection, confers upon the descendants a greater specific resistance than is possessed by those individuals in whose ancestry there is no taint of the disease. They may be anemic, weak, with little stamina, and small resistance to other diseases, but their immunity to tuberculosis is relatively very great.

We know that there is a racial predisposition to tuberculosis, which can more truly be called an absence of an acquired immunity. We know that the American-born citizen has a much greater resistance to tuberculosis than he had ten years ago. In the full knowledge of every particular which has contributed to creating this resistance, there is abundant evidence that this racial immunity is nothing but a vast aggregation of individuals possessing an increased resistance to tuberculosis, and, manifestly, they have acquired this specific immunity through cured infections in their ancestry or through the presence of tuberculous foci

in their own organisms at some time. The cases we too frequently see would not seem to bear out such a contention, but there is abundant clinical evidence that localized tubercloses, such as cervical adenitis, tuberculosis of the nose, slight apical infections, tuberculosis of bone and joints, tend to protect patients from pulmonary infection. Also we have the apparent certain proof of post-mortem reports showing that at least 75% of cases dying from causes other than tuberculosis have healed lesions in the lungs. They have had the disease; they have recovered; they have not contracted it again, though constantly exposed to reinfection. What is the logical conclusion?

A notable example of general or racial absence of immunity is the Indian. There is no more feasible explanation of his susceptibility than that he has never had an opportunity to become immune or adapted to the tuberculous germ and toxin by reason of its presence in his ancestors.

III. In immunity the measure of resistance developed is intimately dependent upon the virulence of the germ and the rapidity of toxin excretion. If the bacteria are quickly and actively virulent, the resistance will be very marked, and if immunity develops, it will do so rapidly. If the bacilli tend to lie dormant, excreting toxin sluggishly, the development of the resistance will proceed slowly and sluggishly. This is as it should be, following the laws of adaptation. Herein lies an important suggestion when we study the problem of the prevention of tuberculosis and try to conceive of the possibility of a specific immunity artificially produced in a healthy organism. The nature of the development of tuberculosis, the characteristics of the germ, its specific action on tissues and their reactions—all make it hard to conceive how a single inoculation, like a vaccination, could ever confer an immunity. But that the grad-

ual accustomance of the system to tuberculous poison and the gradual raising of the defenses can confer such an immunity is an entirely tenable belief.

We know that the presence of tuberculosis in the tissues and the diffusion of the toxin through the circulating fluids develops in the white cell a high resisting power; also active, aggressive properties. The best illustration of this is the reaction to the cuti-tuberculin tests. A suspension of dead bacilli and their toxins are scratched into the skin; within a few hours the aggressiveness of the cells is manifested by their migrating to the spot and surrounding the area where the toxin has been placed in contact with the tissues. The cells circulating in the blood have had developed in them the tendency to attack tubercle bacilli, dead or living, wherever they come in contact with the tissues. It is clearly taught that if a tubercular infection were of such a nature as would liberate a definite quantity of toxin at stated intervals, in gradually increasing amounts, the lesion would quickly heal itself; the cells, under the stimulus of these benevolent doses of toxin, would develop such a resistance that they would overcome the infection, neutralize all the toxin, and kill off the germs. We aim to approximate this very condition in administering tuberculin.

In using the cuti-tuberculin test in twenty-odd cases the last few months, four of that number had been apparently cured, having no signs of activity, either local or constitutional. At some time past they developed suspicious signs which had subsided. They now gave typical reactions to Von Pirquet's test. According to Wolf-Eisner this might indicate a healed lesion which was once active, as well as a present activity. In other words, in each of these cases there was a lesion healed or definitely arrested; the germs killed and removed by phagocytes or the focus walled off by fibrous tissue. Still, the



activity of the bacilli and the action of the toxin have left the defensive cells in a state of aggressiveness, so that they mass themselves at the point of invasion far more promptly and effectively than do the cells in an individual who has always been free from tuberculosis. So that, after discounting the effect upon the general resistance, there is, to the extent of this increased ability to resist, under the stimulus of a specific invading agent, an immunity to that agent.

Now, if in such cases as these the resistance of the cells have been increased and a relative immunity produced, why cannot the same result be brought about in a perfectly healthy individual by artificial injection of the toxins and dead bacilli? Is it possible to take a healthy organism and in this way increase its specific resistance to tuberculous invasion? Can we raise the bacteriolytic power of the blood—called the Opsonic Index by Wright—and the phagocytic power of the white cells? Would not this or a similar treatment make the white cells and other defensive agencies more sensitive to tuberculous poisons and, at the same time, more aggressive against the bacilli when the two come in contact? The writer has experimented a little along this line. Some months ago a man was proven free from tuberculosis by using three successive tests by Von Pirquet's meth-

od, using in succession, 25%, 50% and 100% Koch's Old Tuberculin, without the slightest reaction. Injections of tuberculin were started beginning with 1-10,000 Mgm. Tuberculin R., and increasing to 100 Mgm. within six weeks. After a dose of 1-10 Mgm. a test with Calmette's prepared solution gave a slight reaction. After a dose of 100 Mgm. vaccination with Koch's Old Tuberculin reacted fairly well. A final injection of 500 Mgm. T. R. was given and a test by Moro's inunction method gave the papular eruption. A week later vaccination with Calmette's prepared sol. reacted well. There was a slight difference in these reactions compared with those occurring in tuberculous patients; on the healthy organism it was not so pronounced, but was more rapid in making its appearance, coming in about half the time. One thing we can say positively regarding this experiment. That, whereas, in the outset this man's cells were indifferent to the presence of tubercle bacilli and toxin; under the artificial stimulation given them, they are now actively aggressive when brought in contact with this specific agent.

Are we not justified in concluding that there is an increased specific resistance in this man—and that to the extent of this added resistance, he possesses an immunity to tuberculous infection?

## SURGICAL TECHNIQUE.\*

BY J. B. McNALLY, M.D., PRESCOTT, ARIZONA.

Nearly all of us are in the habit of excusing a fault, if it admits of apology or extenuation, or when some extraordinary circumstance or condition seems to justify it. On this basis I hope to be excused for bringing before you a subject entirely devoid of originality at such an impor-

tant meeting as this. But, while I have nothing new to present, I feel that the subject of surgical technique is so important to the general practitioner and specialist alike, and too, like the Old Writ of the good book, is always in season, and I believe that a few old pointers on surgical technique

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will bear repeating. Yes, they will likely bear repeating as long as the imperishable names of Pasteur and Lister live in the hearts of a grateful profession, or as long as humanity owes them the debt it can never repay.

Concomitantly with the discoveries of Pasteur and Lister a new and legal responsibility was rightfully imposed upon the surgeon. In pre-aseptic times the baffled surgeon might, with a clear conscience and undisputed claim, place the cause of putrefaction, purulency and death, on the broad shoulders of a "Great Unknown Cause," but since that time, and now, and in the future, the surgeon who wantonly disregards the principles of asepsis and antisepsis in the treatment of those committed to his care, and allows the unseen but subtle foe to wreak havoc, disease or death, is as much amenable to the powers that reign as is the common malefactor for the crimes of battery or manslaughter, as the case may be.

In order to have a clear and intelligent understanding of the essential causative factors underlying the process of wound infection, it is absolutely necessary that the surgeon should have at least an elementary knowledge of surgical bacteriology, or of the organisms that commonly infect wounds. This knowledge and its importance, duly, and ever vigilantly respected, together with a constant effort on his part to prevent a vicious circle of contamination, not only from patient to patient through himself, but from every possible source of infection, will in time establish a habit and technique that will well repay him for his diligence. I have witnessed surgical operations where elaborate precautions were taken to insure perfect asepsis, and yet, in an inadvertent moment, I have seen the leading surgeon wipe, or scratch his face or nose, and immediately plunge his septic fingers into a

clean abdominal wound. Such an act is entirely inexcusable, and might rightfully suggest on the part of the operator a very small sense of responsibility toward the health or life of his patient. So it will be seen that a single act of carelessness in the different steps that make up an operation is sufficient to vitiate all the precautions that have been taken to keep the wound aseptic, and unless the technique of the surgeon, including all his operating paraphernalia, be exact, precise, and fully adequate to the ends in view—namely, perfect sterilization of the wound and its surroundings—the antiseptic or aseptic procedure will prove a delusion and a snare. For it will induce a false sense of security in the operation which may prove disastrous to the patient.

It is not the purpose of this paper to dwell on the technique which should be pursued in the examination of the patient prior to an operation, or the indications and counter-indications for an operation, for, although of the very highest importance, time will not permit us to dwell on them at length.

After the surgeon has determined in any given case, that an operation will, in all probability, improve health, or conserve life, it is as vitally essential as it is patent to all, that a careful and painstaking physical examination of the patient should be made. In my opinion, the too often careless examination of merely testing the urine for albumen or sugar, or listening to the apex beat of the heart for a few moments, is wholly inadequate, and betrays a degree of neglect or incompetency entirely foreign to the methods of the modern, alert, thoughtful, and well-trained surgeon.

It should be the duty of every active physician and surgeon to familiarize himself with, adopt and practice every rational means and method which insures a greater degree of certainty, or

which is manifestly better in the treatment of the sick than past methods and procedures.

In the preparation of patients, it seems wise that the surgeon should get acquainted with them, and endeavor to impress them with a favorable feeling towards their surroundings, the operation, and himself. This can be done and is better done, without any actual promises of success in the outcome of the operation. A cheerful disposition, a hopeful word, gentleness, and a certain exhibition of respect for the patient's feelings while being exposed, or submitting to examination, will inspire hope and allay anxiety.

The patient should be thoroughly examined. The heart, lungs, liver, kidneys, and spleen should be carefully looked into. The urine should receive the same attention, and whenever possible, a blood-count should be made. The intestinal tract should receive proper attention, although drastic catharsis should be avoided. Whenever time and circumstances permit, it is a wise plan to stimulate the secretory and excretory organs and glands, and institute measures for the control of gastro-intestinal fermentation following the operation.

The personal and family history is often an invaluable guide to the surgeon in foretelling the wisest method of procedure. In advanced pathological conditions of a surgical character, where every cell and organ of the body is below par, where toxins, pain and malnutrition have played their part in devitalizing the constitution, there is much wisdom in the practice of endeavoring to reconstruct the shattered and non-resistant forces of the body before attempting to operate. Failing in this, it is often well to refuse to operate. By this practice, we will many times avert a tragical outcome.

The average surgeon must not be discouraged at the thought that he

may never equal the lately departed and illustrious Nicholas Senn, Howard A. Kelly, or J. B. Murphy, and a few others of equal note; for such men and minds were ever rare in every age and clime, and a sad plight indeed would man be in, were those few great ones but given to smear the balm on, or soothe the ills of his imperfect nature.

Every surgeon, however, must be a good anatomist, and be thoroughly acquainted with the regional anatomy involving every operation. He must have a certain amount of natural talent, and be enthusiastically devoted to his profession. A complete mastery of surgical technique; a keen eye, steady hand, and delicate touch are absolutely necessary. And, too, he should give some thoughtful and technical consideration to the plan of the operation beforehand, and then, after commencing, should carry out his plan, or plans quietly, quickly and resolutely.

After the indications and counter-indications for undertaking any operation are carefully and correctly weighed, a problem which is often difficult to decide (for the highest degree of health and comfort of the patient should be the paramount question at all times), the surgeon should maintain an attitude of firmness in respect to his decision, which in the majority of cases will promptly inspire confidence and gain the consent of the patient to the proposed operation.

Surgical Sepsis.—I have seen somewhere in current medical literature within the past few years, that the tubercle bacilli, as well as other pathogenic micro-organisms, have, by primary culture, been demonstrated to exist in the embalmed tissues of a mummy recently extracted from a tomb in Egypt. And from hieroglyphic data it was calculated that the mummy lived, died, and was embalmed during the reign of Queen Dido, or about the



time that Homer begged his fare in the narrow streets of Thebes.

Be this as it may, the ubiquitous creatures are with us today, and it behooves every man who would wield the scalpel, or treat an injury, to ever presume their omnipresence within and without the body. Modern experiments and observations have shown to what a wonderful extent the cells and fluids of the body resist the entrance and action of pathogenic micro-organisms, and in view of this knowledge of the anti-bacterial properties of the body cells and fluids, it is but reasonable to suppose that this inhibitive action would, in a great many cases, explain the good results obtained in surgical operations performed under faulty technique.

We most rightfully wreath the brow of every man who brings us knowledge. The labors and discoveries of Ehrlich, Wright, and many others will live indeed to bless their names. The future practice of medicine may, through the scientific recognition and understanding of the resistant forces of the body cells and fluids, appease the cry, the longing cry, the ever-present wail.

It would, however, be an ultra-serious error to rely exclusively in surgical technique upon the germ-destroying powers of the living cells and fluids of the body; great as they are, and important as it is not to interfere with their assistance. For it has been clearly demonstrated by such men as Welch, Robb and others, that where bacteria have been found in wounds presenting every appearance and condition of asepsis, the bacteria were either non-pathogenic, or possessed of little virulence. And it is well that we should further remember (for it has been conclusively demonstrated) that the skin, hair follicles, digestive canal, and the female genital tract up to the internal os uteri are in normal condi-

tions the abode of various species of micro-organisms. Those organisms, however, are practically innocuous so long as the tissues in which they reside are free from disease or injury. But should the physiological resistance of any of those parts become impaired through direct trauma, or by any other cause, we then quite often observe with what activity those latent germs destroy the crippled tissues.

Asepsis.—As it is not practicable to ascertain beforehand the specific character of the various forms of bacteria which infest the skin and other tissues of the body, especially as to their pyogenic character, or disease-producing properties, the ideal principle and practice of modern surgery is, to first assume that the skin of the patient, as well as the mucus surfaces, the hands and other parts of the surgeon, those of the attendants and nurses, the instruments, dressings, etc., are all in an infected condition, and remain so until rendered aseptic by antiseptizing. In the second place, after securing the aseptic condition, it endeavors to maintain it throughout the operation.

Antisepsis.—As a feature of surgical technique, and in a general sense, antisepsis is the Alpha and Omega of all our efforts, and after all, it is only a means to a more important end, namely, the securing of perfect asepsis. As, according to our present methods of generating electricity, it requires a power, gross as it were, to produce the more subtle force, so might we compare the antiseptic procedure in developing the more ideal condition of surgical cleanliness, known as asepsis.

The antiseptic principle can be applied, or worked out in many ways, but, by whatever method we proceed to reach the aseptic goal, we must first consult and be guided by the scientific findings of the bacteriologist, lest we founder in the shoals.

The best practical, and at the same time cheapest, antiseptic agents we possess are soap, scrubbing brushes and running water.

The surgeon who commences to render aseptic his hands, instruments and field of operation without thoroughly scrubbing those parts with soap and running water, and afterwards with sterile water, is either very much behind, or in advance of present methods. Very few surgeons, however, ignore this important step, although there may be some who are not as thorough as others, and who neglect the important act of removing every particle of dirt from beneath and around their finger nails, or to see to it that every piece, crevice and joint of their instruments are perfectly free from foreign matter by the use of soap, water and brush before boiling, or aseptisizing.

**Steam Sterilization.**—There is probably no process of sterilization so effectual or satisfactory, when practical, as steam under pressure. The most resistant spores and bacteria are destroyed in less than thirty minutes by steam under a pressure of fifteen pounds, and whenever possible, this method of sterilizing dressings of all sorts, such as gowns, towels, dishes, napkins, silk ligatures, caps, operating gowns and silk-worm gut, should be practiced, taking care, however, that the ligature material mentioned is first placed in a piece of ignition glass tubing and plugged at both ends with sterile cotton before being placed in the sterilizer.

It is only reasonable to expect that every hospital offering accommodations to the surgeon and his patients, should be fully equipped with the latest and most efficient utilities for the carrying out of this antiseptic principle.

For small country hospitals the surgeon's office, and when compelled to operate at the patient's home, the Ar-

nold, or Boeckman steam sterilizer is portable, cheap and effective. Of course, live steam not subjected to pressure requires a much longer period to effect sterilization. In order to insure perfect sterilization by this method, it is necessary to institute what is known as fractional sterilization, *i. e.*, the material to be sterilized is subjected to the live steam in the Arnold, or Boeckman sterilizer, or any sterilizer similarly constructed, for one hour on the first day, and for one-half hour each day on the two following days. By this process we destroy all bacteria and inhibit their further growth from any spores that may be present.

The preparation of the field of operation is an act in surgical technique which should be carefully and thoroughly performed. The methods applicable to some regions will not be suitable to all. The green soap poultice, and vigorous scrubbing with ether, alcohol or turpentine, is especially suitable to the scalp, or regions over which the epidermis is dry and thickened, like the hands or feet. But close shaving, too vigorous scrubbing, and the prolonged application of irritating antiseptics will often produce a very troublesome dermatitis; especially over parts where the integument is thin and vascular.

Every man pretending to do even a little surgery should have an equipage of the latest instruments most commonly used in general operating. They should be kept clean and neat, and his edged instruments should always be kept in first-class order. Dull instruments should never be carried into an operating room; neither should the old bone, wooden, or pearl-handled instruments, for they are now things of the past. Even the veterinary surgeon has long since refused to use them.

The boiling soda solution is probably the best antiseptic for instruments;

a one per cent. solution is sufficient. It prevents rusting and also dissolves the capsule of the germ within five minutes, while simple boiling water requires a much longer time. Needles and silver wire should be boiled from five to fifteen minutes. Boiling sharp instruments dull them slightly, so will chemical sterilization, and as far as possible, it is safer to depend upon steam, or heat sterilization rather than upon chemicals. After sterilization, and during the time of operation, all instruments are best kept in sterilized water. Chemical solutions chap the hands, and often to such an extent as to render it impossible to clean them with nail brushes. This is especially true of carbolic solutions, so that the germicidal effect of the carbolic solution is more than counter-balanced by the injury which it causes to the hands. And, too, the acid solution remaining on the instruments, such as knives, retractors, etc., may irritate the tissue cells, and even set up a degree of necrosis which might materially retard the process of healing, or act as a culture medium for any germs that might be deposited in the wound later.

**Operating-Room** — The operating-room should be simple, spacious, and well lighted by skylight, and northern windows, and should be so constructed as to facilitate the work for which it was designed. The doors should be of the noiseless, sliding kind, so as to offer no obstruction to the entry or exit of the carriage on which the patient is transported to and from the table. The walls should be smooth, hard finished, or enameled, so as to resist the disintegrating action of steam as well as to allow of their thorough disinfection by spray, or scrubbing, when necessary. The cleansing of the walls and floor is helped by rounded angles. Elaborate ornamentation and unnecessary furnishings should be eschewed. There are several kinds of material used for flooring, but for

economy, durability, and ease in cleansing, the smooth cement pavement is probably the best.

The floors of some operating rooms are laid with a slope toward the center, or toward one corner of the room where there is a drainage vent. This utility would appear more dangerous than useful, for the waste pipe may become clogged.

In considering the ventilation of the room, it should be borne in mind that, while we do not ascribe so much risk to contamination from the air as formerly, yet infection may sometimes be carried in this manner. The entrance for pure air and the exit for impure air should be so placed that the current will not be conducted over the operating table, for, aside from any possibility of infection from this source, the patient may become chilled.

The equipment of the operating-room should be simple. It should contain only the necessary furniture and utensils for the proper accommodation of the patient, the surgeon and his assistants. A prime requisite is a row of large, oval marble basins, easily sterilized, and abundantly supplied with hot and cold water, with taps so constructed that the hot or cold water can be turned on or off at will by a pedal attachment, on the floor beneath each basin.

A large sink for the immersion of dishes, etc., and a hopper for waste water should be in a convenient place. The traps and pipes should be inspected and disinfected frequently. The room should be fitted with electric lights and gas fixtures; and an electric light bracket should be arranged near the operating table, so that a portable light with a reflector could be easily attached. Of course, a group of incandescent lights with reflectors should be suspended over the operating table.

The table should be a modern one. Edebohl's or Boldt's are simple, well constructed, and are easily adjusted.



They incline the whole body, and are well arranged for self drainage.

Whenever possible, it is best to keep dressings, sterilizers and water boilers in an adjoining room. The sterilizing should not be done in the operating-room. The anesthetic should be commenced in a nearby room, and care should be observed to have it so situated that noises from the operating-room will not be heard by a waiting patient. An abundance of hot and cold sterile water should always be available in the operating-room.

As the field of surgical technique is so extensive, we cannot further attempt to deal with the subject in detail. Therefore, we shall mention the various important points by title only. We hope, however, that the few remarks we have made, and the subject so far treated, will elicit from you a criticism which shall stimulate all of us to a further and better understanding of this

most important subject. There is an abundance of classical literature on the subject, and I am certain that a close study of it will add much to our ability, be we physicians, or be we surgeons. The sterilization and preservation of instruments, ligatures, sutures, gauze, absorbent cotton, towels, bandages, sponges, drainage tubes, pads, operating suits, brushes, vessels, and many other things, should and must be carried out with the same care and attention ere we dare hope for aseptic results.

The Antiseptic Conscience is only developed by a thorough schooling in the Antiseptic Doctrine, and this schooling is sure to lead to an irresistible loathing, an instinctive shrinking of, and from infection; and he who develops this conscience and obeys its dictates will live and work in an atmosphere of satisfaction that will well repay him for his efforts.

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## MODIFIED SMALLPOX.\*

BY C. D. BALL, M.D., SANTA ANA, CAL.

It was the writer's fortune to be introduced to smallpox in the fall of 1881. The introduction was followed by a mild attack of varioloid. That epidemic, although not extensive, was responsible for forty deaths. It was, however, only a prelude to the terrible disaster that followed in 1885, when the Province of Quebec was so scourged by the disease that nearly six thousand perished. My personal experience was not vast in these epidemics, but it was sufficient to give me some knowledge of smallpox.

Out of Cuba, during or soon after the war, came a contagious, eruptive fever. Appearing first in the Southern States, it spread throughout the Union. Wherever it appeared there was a difference of opinion among the physicians as to its nature. Some thought it was small-

pox, others chickenpox, still others that it was a new form of impetigo contagiosa, or some unclassified disease.

Its symptoms certainly suggested smallpox. There was a chill or rigor, headache, backache, an initial fever and gastric disturbance. A macular rash appeared, followed by papules, vesicles, pustules and scabs. Boils and abscesses were occasionally noticed. Yet the patients, with very few exceptions, recovered. If the disease were smallpox why had it become so modified? Why had the secondary fever, so dreaded in the past, grown so harmless? Little wonder that there were conflicting opinions about this mongrel disorder. The advocates of smallpox could not satisfactorily answer the questions, but they could easily demonstrate that it was not chickenpox. Varicella was a much

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milder disease and of shorter duration. Its eruption was on the trunk, not the extremities, it was less uniform in its stages, the base of its papules were more inflamed, the vesicles were more uneven in size, smaller, and not prone to umbilicate.

To further complicate the diagnosis, when the modified smallpox last appeared among us, and it has been nearly endemic for the past two years, chickenpox was unusually active. The health officers of many localities had to contend with a hostile public, often incited to more or less open resistance by physicians, presumably honest and conscientious, who regarded both diseases as varicella. This hostility induced me to carefully observe about one hundred and twenty-five cases that were diagnosed as smallpox by those in charge of our Health Department. Some of these cases had been reported as chickenpox. Although many of the patients were very sick, none died.

Of all the eruptive fevers, varicella is the least likely to occur a second time; the world's literature only mentions a few cases. Welch and Schamberg say: "Thomas never observed a second attack, an experience that corresponds to ours." About one-third of our cases (the Mexicans not included as correct data could not be obtained from them) had previously suffered with chickenpox.

Only two of the number had been successfully vaccinated, one many years before and one only five years previously.

In one camp eleven children were exposed to the disease, nine of them were successfully vaccinated and all of the nine escaped the infection. The other two would not permit vaccination and both came down with the fever. In another camp, one of a family of seven children having contracted the disease, the other six were vaccinated and all escaped.

We were not so successful with some of our vaccinal efforts. In five instances the vaccination and eruptions worked simultaneously. One of these patients was very sick, the vaccination not ameliorating the symptoms in the least.

Seven attendants who had had smallpox were unaffected by the disease.

When we remember that an attack of smallpox does not invariably protect against a second attack; that vaccination is occasionally followed by varioloid; that persons have been vaccinated twice successfully within a period of less than two years, it is not surprising to find that Jenner states: "Although the susceptibility of the virus of cowpox is for the most part lost in those who have had the smallpox, yet in some constitutions it is not wholly destroyed, and in others it does not appear in the least diminished. By far the greater number on whom trials were made, resisted it entirely; yet I found some on whose arms the pustules from inoculation had formed completely, but without producing the common efflorescent blush around it, or any constitutional illness, while others have had the disease in the most perfect manner."

We selected twenty from our convalescents, who had never been vaccinated, and carefully vaccinated them. Nineteen showed no results whatever; with the remaining one, after seven or eight days, there was a mild inflammation and a vesicle that did not leave a permanent scar.

Welch and Schamberg say: "Future experiment will be necessary to confirm the successful inoculation of chickenpox." A little child in one of the families inoculated himself on the scalp. In playing about he must have infected his finger and then scratched himself. The vaccination was perfect. He escaped with only one or two papules outside of the vaccination pustule.

These various observations leave no proof wanting that the disease was smallpox of a mild or modified form.

The cause of this mild modification will ever remain a mystery. It is not, as some have suggested, the result of hereditary vaccinal influences, for the children of unvaccinated, Mexican parents presented the same mild symptoms as did the German children whose ancestors had been vaccinated for three generations. Climate alone has not brought it about, for again and again has malignant smallpox ravaged the tropics and semi-tropics.

In this epidemic, history only repeats itself. Sydenham reported a remarkably mild epidemic of smallpox with no deaths, but possibly he did not recognize the duality of smallpox and chickenpox. The duality was clearly described by Fuller in 1730. Van Swieten, the noted Dutch physician, thus wrote of a mild epidemic in 1759: "The primary fever is often little more than a febricula, and the pustules seldom exceed one to two hundred. The form is so mild that secondary fever is not manifested and constantly is wanting, convalescence coming on the eighth day of the eruption."

And the great Jenner, to clench controversy for all time to come, thus placed himself on record in 1798: "About seven years ago a species of smallpox spread through many towns and villages in Gloucestershire. It was of so mild a nature that a fatal instance was scarcely ever heard of, and consequently so little dreaded by the lower orders of the community, that they scrupled not to hold the same intercourse with each other as if no infectious disease had been present among them. I never saw or heard of an instance of its being confluent. The most accurate manner, perhaps, in which I can convey an idea of it is by saying, had fifty individuals been taken promiscuously and infected by exposure to this contagion, they would have had as mild and light a disease as if they had been inoculated with variolous matter in the usual way. The harmless man-

ner in which it showed itself could not arise from any peculiarity either in the season or the weather, for I watched its progress upward of a year without perceiving any variation in its general appearance. I consider it then a variety of smallpox."

There are border line cases, between smallpox and chickenpox, that would puzzle the most careful diagnostician, but usually with these are associated concurrent cases that aid in clearing the diagnosis.

Many observers have mentioned the peculiar fever, with a chill, backache and headache, that follows an exposure to smallpox, a fever not accompanied with an eruption. Several of these cases were noticed in our detention camps. Usually the patients had been vaccinated, but there were two or three exceptions.

For the treatment of smallpox little may be said. There is no specific. Medicines have no effect upon its course. Applications do not prevent pitting, even tincture of iodine fails to do so. Of course, attention should be paid to the hygiene; fresh air, clean clothing and cleansing baths. Symptoms should be treated as they arise. Itching should be allayed by moist antiseptic applications. The eyes should be carefully watched and often flushed with boric solution. Scratching should be prevented if possible.

So long as we have vaccination there is no need of a specific for smallpox. Universal vaccination would not only disarm smallpox, but it would obliterate it from the face of the earth. In the Quebec epidemic, while the French, who were anti-vaccinationists, died by the thousand, the vaccinated English escaped untouched. Finally, when vaccination was enforced over the whole Province, the epidemic subsided at once. Water never extinguished fire more effectually than did the vaccination wipe out the smallpox.

In all that epidemic there was scarcely



a death among the vaccinated, and many of them had not been vaccinated for years. This proved that the protection derived from vaccination is rarely entirely lost.

Variolinum, or internal vaccination, did not appear to have much effect upon our cases. Eight or ten, who had been treated with the variolinum, were vaccinated; all of these vaccinations were successful.

The anti-vaccinationists must have hailed this mild smallpox with delight. Half of our population now believe that smallpox is preferable to vaccination. Twice within ten years have our vaccination laws been saved by a Governor's veto or influence.

This mild, modified smallpox is not as free from danger as is generally believed. As compared with vaccination it is dangerous and destructive. Since July 1, 1906, there have been fifty-seven deaths from smallpox in California. During the same period there has been no death directly due to vaccination, and in only one, a case of tetanus, has it acted as a contributory cause. It would be interesting to know what

would have been the death rate from smallpox, in the State, during that time, if a very large per cent. of our population had not been protected by vaccination.

When over twenty-five hundred school children were vaccinated in Orange county in 1908, there was not a death nor a child seriously injured. Many thousand children and adults have been vaccinated in the State since July 1, 1906, with a single death, due to tetanus. With pure lymph and aseptic precautions, no one should die from vaccination.

Minnesota no longer quarantines smallpox but prefers to rely upon vaccination for protection. Time will show the wisdom of this procedure. Her vaccination laws must be rigidly enforced or sooner or later she will pay the penalty for what appears to us to be a gross error in judgment.

When smallpox again becomes vicious, and it surely will, for such is its usual life history, will it find California without a vaccination law? If it does, the harvest will be abundant and it will be appalling.

## TRIFACIAL NEURALGIA.\*

BY D. D. WHEDON, M.D., SAN DIEGO, CAL.

Ordinarily the diagnosis of trifacial neuralgia presents no particular difficulty. The acute intense pains with their exacerbations and periods of relief—the characteristic course through one or more of the principal nerve branches of the trigeminal nerve, plainly indicate the symptom, but all too frequently leave the underlying etiological factors undiscovered. Scarcely a constitutional disease, a dental disorder or a septic condition exists that has not been credited with producing the symptom, and yet, in a most severe and pronounced case, it may be impossible to

ascertain any true cause. Thus it so frequently happens that we must treat this symptom by itself regardless of the agency underlying its production. The process of examination to determine, however, the cause should be carefully executed that no possible etiological conditions be overlooked. My own plan is to begin at the vertex, palpating the scalp and brow—investigating the eyes, the nasal fossae and mouth—especially the jaws and the naso pharynx. It is frequently necessary to subdue the pain first with morphine before conducting this examination. It is neces-

\*Read before the Southern California Medical Society at Los Angeles, December 2, 1909.

sary also to examine into the systemic conditions, laying particular stress on the various cachexias, anemias, syphilis, the teeth, and to make sure that no neoplasms exist in the cranial cavity that might press upon the nerve. It is well to remember that trifacial neuralgia may result from a neuritis of the seventh nerve, often before an advanced case of Bell's Palsy has evidenced itself. In such a condition the pain is generally found in the mastoid area and ear during the early stages and later is apt to radiate to the face and occiput. As long as thirty-five years ago, it was recognized that facial neuritis produced these symptoms through the involvement of the contiguous peripheral branches of the trifacial. The importance of recognizing this condition early is to avert by prompt measures the complete development of Bell's Palsy.

Trifacial neuralgia presents no definite pathological changes to be met with in all cases. Certain it is that in most of the true cases of tic douloureux the arteries supplying the nerve undergo endarteritis and the nerve itself shows atrophic changes due to a low grade of inflammation, but to ascribe the real cause of the pain to any well defined pathognomonic conditions is at present impossible. Hence it is that, with the multiplicity of more or less accepted causes and practically unknown pathology, the methods of treatment advised are legion, and until very recently, decidedly unsatisfactory. Even with our present treatment, the results are frequently in doubt, and I believe that a prognosis of a probable recurrence of this most troublesome symptom should always be made advisedly. Rarely it may happen when a well understood cause such as syphilis or rheumatism or pressing neoplasm may be operating, that the neuralgia will terminate with the cure of its producing agency.

We are all more concerned with the

treatment of neuralgia, however, than with any theories concerning its production and pathology. As has been said, the methods for relief and cure are numberless. Of course it is generally agreed that the treatment should be causal when it is possible to find an organic affection as a basis, as, for example, the use of quinine or Warburg's tincture with a patient of malarial taint, the care of the teeth in Riggs disease or other dental disorders, the use of mercury and the iodides in syphilis and so on. And then when we have done all these required duties, it has been my personal experience that the neuralgia will still persist and our patient will return and plaintively ask us for relief from his agony. Ordinary medical measures are soon found to lose their potency. Aconitine, gelsemium, colchicum, arsenic, cannabis indica, the coal tar preparations with their host of proprietary associates, strychnine, nitroglycerine, and finally morphine or some form of opium all give temporary relief and then fail. Surgical intervention has accomplished more. Division of nerves, stretching of trunks, intercranial operations and gasserectomy have all had their adherents and have proved more or less beneficial. Some of these operations, however, have proved fatal and it is generally conceded that in most cases, only a respite is to be expected. Yet we find these patients willing and almost eager to accept any surgical intervention the physician may advise, so agonizing is the pain.

I believe that we should leave these intricate operations to be a last resort, however, in this day when the injection methods are producing such good results and are attended with little or no danger and comparatively little distress. Osmic acid in from one to two per cent. solution has received the most attention, I believe, and I have personally witnessed one injection which was successful. Its action in dissolving the medullary sheath after the nerve has

been exposed is painful and is best done under total anaesthesia.

In neuralgias generally I have been using the normal salt solution and the 80 per cent. alcohol injection. As a statement of interest, not directly connected with the subject under discussion, I would like to say that I have a number of times used the normal salt injection with unexpectedly beneficial results—in two cases of neuritis when the plantar nerves were involved the complete relief was immediate. I have also used this injection in intercostal neuritis, always producing a decided degree of improvement. The alcohol injection in sciatica has been successfully accomplished by so many practitioners that its value cannot be questioned.

To return to the trifacial nerve, the use of the 80 per cent. alcohol injection has been done repeatedly and with extraordinary results. Various methods may be utilized. To introduce the needle through the cheek and upward behind the jaw, passing through the foramen ovale, is neither difficult nor dangerous. Schloesser's method of reaching the three main branches at the foramina where they enter the face is a sure and trustworthy procedure. Thus we may inject the ophthalmic division at the supraorbital foramen—the superior maxillary at the infraorbital foramen and the inferior maxillary at the inferior dental foramen. So well convinced am I of the value of this treatment, both from recent reports concerning it, as well as from my own experience, that I believe no severe and prolonged case of trifacial neuralgia should undergo any difficult surgical operation until this simpler method has at least been tried. I also believe I am conservative in my estimate of the benefits to be derived. I do not believe these cases are permanently cured—but can any method employed be an assured success? Some of the cases I injected months ago are telling me of "twinges"

that are ominous of future troubles. One has had a slight recurrence of true neuralgic pain, which, however, was not prolonged. This difficulty is not at all discouraging. There is no reason to believe that a second treatment will not be fully as satisfactory as the first. Few accidents have been reported, and fewer still that were alarming. A case of herpes gangrenosus has been reported by Schloesser, while Kiliani, after injecting 190 cases, reports one case of oculomotor paresis lasting three weeks, and one of paresis of the facial nerve lasting two weeks.

In conclusion I would say, that with so much to be gained and so little to be risked, there should be no hesitancy on the part of the physician to advise this procedure. And I am convinced that, a general acceptance of it by the medical profession would go far towards eliminating this most painful symptom.

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#### TUBERCULAR ULCERS.

It should be borne in mind that exposure of local tubercular ulcers to the direct rays of the sun for one or two hours daily will many times cause them to heal. I have seen several cases that had resisted all local and surgical treatment healed in this manner. I recall a case that had a tubercular ulcer on the left side of the chest as large as the palm of one's hand. The patient had been operated upon two or three times and a portion of the rib resected, yet the ulcer would not heal. The doctor used all the local means he knew to use, but all to no avail. He then decided to try exposing the wound daily to the direct rays of the sun. The result was that the tubercular granulations gradually disappeared and in a few weeks the wound was healed.

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It requires a skillful surgeon to set a bone, but anybody can set an egg.



# SOUTHERN CALIFORNIA PRACTITIONER

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## EDITORIAL

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### DR. ELIZABETH A. FOLLANSBEE.

An unusual and yet a most graceful and altogether a most deserved tribute was that which was tendered Dr. Elizabeth A. Follansbee, at a recent meeting of the Los Angeles County Medical Association, when the evening was set aside as an honorary meeting and tribute for her long and efficient service in our midst. The brief addresses which were presented at that time are printed herewith, and the frontispiece of this number is a half-tone photograph of Dr. Follansbee. The PRACTITIONER gladly notes this meeting as a matter of historical reference. Our words of praise and commendation in themselves can add little to the glory of a life as full of usefulness and generous thought to her fellow human beings as has been that of Dr. Elizabeth A. Follansbee.

It is an unusual thing that in a community as comparatively young as our own, there should have been in our midst for so long a term of years a woman practitioner of medicine, whose professional and personal characteristics should have wielded so tremendous an influence for all that is commendable, as Los Angeles has been fortunate in having in the person of Dr. Follansbee.

The Association Bulletin announcing the meeting stated that "this honorary meeting was intended as a tribute by the Association to her manifest qualities as a physician, as a teacher and as a woman."

The meeting in itself could add nothing to the esteem and honor which her colleagues of long standing had always granted her, but it did give them an opportunity to show their kindly feelings and express those sentiments to

her. It was good for the profession to be able to show this mark of respect and esteem, and we are glad the Association has thus inaugurated a plan by means of which it will be able from time to time to give similar recognition to other worthy colleagues.

The PRACTITIONER extends to Dr. Follansbee its kindest wishes for the years to come, knowing that these also will be filled with useful and kind acts without number.

\* \* \*

Dr. Wm. A. Edwards' remarks on the occasion of the meeting in honor of Dr. Follansbee, were as follows:

Elizabeth Follansbee—You graduated in the year 1877 from The Woman's Medical College of Pennsylvania, in Philadelphia, at a time when women were not admitted to the ranks of our profession with any great degree of cordiality. It took more courage then for a young woman to deliberately plan to enter the profession than it does to-day.

I well remember that Alice Bennett, a graduate of your school, was only admitted to the Philadelphia County Medical Society after much acid discussion in 1884, and she was the first woman ever admitted to a Medical Society in that ultra-conservative city.

I was living in Philadelphia at that time and was a member of the society and I must confess that I was not very enthusiastic over the admittance of women to medicine and to our societies.

But it is women like yourself of good New England stock, the best of our American nation, well born, well trained and well equipped for their chosen work that have turned the scale

in favor of women physicians. You have chosen pediatrics as the field best suited for your well-trained faculties and you have lived to see this particular branch of medicine placed upon a firm basis.

When you graduated there was not a medical college in the United States that had a chair entitled Pediatrics.

It was taught in a very desultory sort of way by one who was generally styled Professor of Diseases of Women and Children, and the attention devoted to the latter was very meager, indeed.

American Pediatrics was without a standard work in the true sense of the word. There was no work in which was gathered the consensus of English-speaking Pediatrics.

It is true that as early as 1858 in Philadelphia, and 1869 in New York, books were published that have proved to be representative and lasting, but these were the individual contributions of but two writers. That Pediatrics is now fully established as a special department of medicine cannot be gainsaid, and that you have had much to do with broadening of the field of Pediatrics cannot be doubted.

As yet the number of those specially devoted to the study and practice of Pediatrics is not large, when compared with some other specialties, but no field of medicine can present more conscientious workers or better trained observers. This is particularly noticeable when we consider that Pediatrics as a distinct branch of medicine only began to obtain recognition a few years ago, and that during the last decade some of the most important additions to medical literature here, in England, and on

the continent of Europe, have related specifically to diseases of children. In all this advance you have taken a prominent part, and woman as you are, have won the esteem, respect and love of this community and its medical workers.

No greater tribute comes to the doctor, man or woman, than the regard of his neighbors—workers in the same field. This you have to the full, and as an evidence of its heartfelt regard I am asked by the physicians of this city to hand you this testimonial.

\* \* \*

Dr. Walter Lindley said in part: It is very fitting that we, as a Society, stop and take note of the close of twenty-five years work by our esteemed confrere, Dr. Elizabeth A. Follansbee, as professor of pediatrics in our pioneer medical college. Ancestry counts for much mentally as well as physically. This being true we are not surprised that Dr. Follansbee holds a high position in California. Our dear friend is a great granddaughter of Roger Sherman, one of the signers of the Declaration of Independence. This great patriot was one of the committee of five with Thomas Jefferson as chairman who drafted the Declaration. What a great committee that was: Thomas Jefferson, Roger Sherman (Dr. Follansbee's great grandfather), John Adams, Benjamin Franklin and Robert Livingston! This ancestor of the doctor's was a member of every Congress from 1774 to 1793, when he died a senator.

Little did he wot that a direct descendant—a century later—would be wielding such a useful influence in far-away Los Angeles, that was then a Spanish hamlet.

I have often thought of the debt those hundreds of young men and women owe to their association with Professor Follansbee during their college years. Both by precept and example she has, during that quarter of a century, steadily directed their aim towards a high standard of life. She little realizes what an abiding love these practitioners—her former students—hold for their self-sacrificing teacher. She has brought to them the influence of the culture of her Boston home, her education in Paris, blended with the broad charity that becomes a part of the fiber of a real Californian.

In her practice Dr. Follansbee has always had many of the leading families of Los Angeles, but she had no use for a bank in which to deposit their fees. She has ever been a sympathetic, practical listener to the call of the poor. Her purse was always open.

I cannot think of Dr. Follansbee without recalling the last few lines of Abou Ben Adhem, who said:

"I pray thee then  
Write me as one that loves his fellow-  
men."

The angel wrote and vanished. The next night

It came again with a great wakening light,

And showed the names whom love of God had blessed,

And lo! Ben Adhem's name led all the rest."

If the final reckoning is made on that basis the chronicler, in speaking of the nobility of woman-kind, will say, "And lo! the name of Elizabeth Follansbee led all the rest."



### THE ARIZONA MEDICAL ASSOCIATION—1910 MEETING.

The nineteenth annual session of the Arizona Medical Association will be held in Phoenix, April 20th and 21st, 1910.

A certain degree of sentiment will be attached to this gathering, since it will, in all probability, be the last meeting of the Territorial Association. This association was organized in May, 1892, when medical societies were not then so popular as they are today. Since then it has worked steadily and consistently for unity and co-operation among the medical men of the Territory. It has surely earned the right to expect every courtesy from them, in its last days.

Sentiment aside, however, this session should and will undoubtedly be of most general interest, and of greatest benefit to the members of the medical profession of Arizona. An effort will be made to have the papers and discussions of a very practical, rather than of an ultra-technical nature.

The greatest interest probably will surround the papers and discussions on "State Medicine." It seems desirable that in assuming the responsibilities of statehood, we should endeavor to avoid the mistakes in medical and sanitary laws, which the older states have made, and at the same time adopt as far as expedient those laws which they have found by experience to be desirable and workable.

A very prominent Eastern physician, especially well posted in sanitary science, will deliver the address on "State Medicine," intimating clearly just what

he thinks we should have, and should avoid, in the matter of public health legislation. The committee appointed at the last meeting of the Association to obtain information regarding public health legislation and organization will present a very full report, including a large number of facts, and some very definite suggestions.

The program committee has been very fortunate in securing prominent California medical men for the addresses on "Internal Medicine," and on "Surgery." Either one of these will, we are sure, more than repay any physician for the time spent in attending this meeting.

A series of papers on "Medical Economics," embracing contract practice and allied subjects, will be of great interest to all practitioners.

Altogether the meeting promises to be the most interesting and profitable medical gathering ever held in Arizona, and this, coupled with the fact that it will be held in the most central point in the Territory, should insure a very large attendance.

The physician who neglects to attend this meeting will certainly be overlooking an opportunity of bettering his equipment for good work, as well as of assisting his confreres in the profession.

J. W. F.

Prescott, Arizona, February 1, 1910.

### GROWTH OF WORK IN THE SELWYN EMMETT GRAVES MEMORIAL DISPENSARY, COLLEGE OF MEDICINE, U. S. C.

The clinical instructors who are on the staff of the Swellyn Emmett Graves Memorial Dispensary of the Los An-

geles Department of College of Medicine, University of California, recently submitted their reports of patients treated for the three month period ending December 31, 1909.

On the basis of figures theré presented, it is shown that 7,000 new cases are treated at this Dispensary every year, and the recurrent visits amount to 13,000 more, making a grand total of 20,000 persons treated during the year. These are large figures, and yet, no doubt, even these will be increased, because the attendance at the Dispensary is constantly increasing, as the efficiency of its methods and organization are bettered.

The plan now in vogue at the Dispensary subdivides the work into the following clinics: A general medical clinic; a general surgical clinic; a clinic for the diseases of women; a clinic for the diseases of children; a clinic for gastro-intestinal diseases; a clinic for rectal diseases; a clinic for the diseases of the ear, nose and throat; a clinic for the diseases of the eye; and a clinic for the diseases of the skin and genito-urinary system.

The Dispensary building also houses the helping station of the Los Angeles Society for the Study and Prevention of Tuberculosis, the clinics for the society being held, however, not during the regular hours from 1 to 3 o'clock, p.m., but between the hours of 4 and 5 in the afternoon.

Dr. Elliot Alden is chief of the staff at the Dispensary, and each clinic has its own chief.

Owing to the large increase in the number of the persons coming to the

Dispensary for treatment, and to the desire of the college authorities and of clinical instructors to utilize this material to the best possible advantage, it is the intention to appoint a goodly number of additional clinical instructors. Physicians who may be interested in the different lines of the dispensary work, and who would wish to take up some such activities as this, should send in their names to the Dean of the College, Dr. W. Jarvis Barlow; the Secretary of the Faculty, Dr. George H. Kress; or to the Chairman of the Educational Committee, Dr. Hill Hastings. In this connection also it may be said that it is the intention to form an outpatient obstetric clinic, each instructor in this clinic to have a certain geographical district in the city, and to respond to emergency calls in obstetric work from patients in his respective district. Any who wish to take up such a line of work may send their names to one of the above persons.

A detailed report showing the different cases treated at the Dispensary will be shortly printed, and should be of interest to the local profession as showing the vast amount of charitable work that can be done by such an institution as the Swelwyn Emmett Graves Memorial.

It will be remembered that this Dispensary, which was founded twenty-five years ago in the College of Medicine, University of California, was organized on Aliso street, and that it was recently named after the late Selwyn Emmett Graves after the lamented death of that young man, who was a student at the College of Medicine. His father, J. A.

Graves, Esq., presented to the College the sum of \$20,000 to enable the Dispensary to carry on its work to better advantage. Mr. Graves' gift is certainly giving rich returns, and the young life, the memory of which is thus perpetuated, is truly doing a great service to this community.

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**DR. LUTHER M. POWERS RE-  
APPOINTED HEALTH OF-  
FICER OF LOS ANGELES.**

At a recent meeting of the Board of Health of the City of Los Angeles, Dr. Luther M. Powers was reappointed Health Officer, this veteran public servant thus beginning his fifteenth year of service to the city.

Dr. Powers' career and work as Health Officer are too well known to need any comment. His friends are legion, and it is decidedly a tribute to him that his strongest supporters should be members of his own profession. For we cannot deny the fact that somehow or other we members of the medical profession are prone at times to judge one another more harshly than do our fellow-citizens.

It is announced that the Honorable Mayor Alexander entertains for Dr. Powers the kindest feelings, and that the Board of Health all desire that Dr. Powers shall be retained in office. We are glad to know this, and we feel certain that the profession will endorse the Board of Health in this stand.

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**EDITORIAL NOTES**

Dr. M. S. Reynolds has located in Ocean Park.

Dr. F. B. Johnson has located in Lordsburg, California.

Dr. F. J. Wagner succeeds Dr. Coffman in Ocean Park.

Dr. Spurgeon V. Riley has located in Monrovia, California.

Dr. C. E. Standlee has located in Brawley, Imperial County.

Dr. Charles Fulmer has located in Oxnard, Ventura county.

Dr. E. L. Grigsby, formerly of Rhyolite, is now in Tonopah, Nevada.

Dr. E. V. Rice of Covina has been seriously ill, but is now convalescing.

Dr. Adolf Kraemer, of San Diego, is spending two months in Switzerland.

Dr. Carlin Phillips of New York City, has been visiting friends in Los Angeles.

Dr. J. M. France, after an absence of several years, has again located in Perris.

Dr. J. L. Pomeroy has joined the staff of the Pottenger Sanatorium at Monrovia.

Dr. A. M. Hewitt of Redlands is convalescing from a serious attack of typhoid fever.

Dr. R. D. Adams of Monrovia had his runabout Buick stolen Sunday night, January 27th.

Dr. I. R. Durfee, city bacteriologist of Los Angeles, has also been appointed milk inspector.

Dr. P. M. Savage, of Chino, California, has been spending two months in Eastern hospitals.

Dr. D. B. Northrup has been re-appointed county physician of San Diego County.



Dr. F. J. Wagner of Carbondale, Pa., succeeds Dr. H. L. Coffman in Santa Monica, Cal.

Dr. Edgar Reed of El Monte is taking a vacation in Mexico and Dr. J. Saylin is in charge.

Neither physicians nor the wives of physicians are on the directory of the Pasadena Hospital.

Dr. Edwin C. Gilbert, graduate of Medical Department of Yale, has located in Santa Barbara.

We have received from Dr. S. J. Hunkin, San Francisco, two reprints: (1) Osteo-Arthritis, (2) Passive Motion.

Dr. N. H. Morrison, Chief Surgeon of the Santa Fe railway, has been making an inspection of the hospitals along his line.

Dr. L. D. Keegan of San Diego has returned home after spending four months in the surgical clinics of New York City.

Dr. Helen O. Anderson of Los Angeles has returned from three years' study in the eye hospitals of London, Vienna and Paris.

Dr. M. A. Bennette, resident physician of the San Bernardino County Hospital, was recently re-elected and salary raised.

The *Lancet-Clinic* of January 1st enters its one hundred and third volume with an enlarged page and becomes one of the great weekly journals.

Dr. Paul Capps has resigned his position as surgeon of the Tom Reed Mining Company, at Oatman, Arizona, and will probably open offices in Jerome.

Dr. W. Harriman Jones of Long Beach has received his commission as assistant surgeon with rank of lieutenant in the National Guard of California.

Dr. Jessie G. Forrester, formerly of Chicago, has located in Santa Monica. Dr. Forrester graduated from the Bennett Medical College of Chicago, class of 1886.

Dr. Harrison Albert Putnam and Miss Rose Sabichi, both of Los Angeles, were married at the residence of the bride's mother on Wednesday, January 12th.

Dr. Edward Anthony Spitzka of Philadelphia proclaims that a child that is naturally left-handed is left-brained and that it is a crime to make it right-handed.

Dr. C. W. Anderson of Los Angeles, who has been associated with Drs. E. R. Smith and Dr. Rea Smith in their offices in the Bradbury building, is now a partner in the firm.

The sixty-sixth annual session of the American Institute of Homeopathy will hold its meetings at Hotel Virginia, Long Beach, Los Angeles county, California, July 11 to 16, 1910.

Dr. J. M. Holden, for twelve years a practitioner in Long Beach and Los Angeles, died January 17th. Dr. Holden was vice-president of the Southern California Medical Society during 1909.

Dr. W. W. McKay, United States Quarantine Officer at San Diego, was recently thrown from a wagon and suffered from fracture of the right ankle that resulted in the amputation of the foot.

Dr. Edward Noble of Lancaster, California, died in Los Angeles January 1st. He was 70 years old and a native of Bath, England. Dr. Noble graduated from the Indiana Eclectic Medical College, class of 1876.

Mr. C. Gottlob Kolb, of the firm of Echerig & Glatz, Chemists, 58 Maiden Lane, New York City, has retired from that firm. Mr. Carl F. Stiefel has taken over all the assets and assumed all the liabilities of the firm.

Dr. George M. Martyn has purchased sixty acres in the foothills, back of Pasadena, adjoining the sanatorium property of Dr. H. B. Stelman. Dr. Martyn proposes to establish an open-air cure for the tuberculous.

Dr. Wm. V. Whitmore of Tucson, President of the Arizona Board of Medical Examiners, will leave for the East early in May, to attend the semi-centennial reunion of his college (Bates), from which he holds the degree M. A.

Dr. Francis Earl Brown and Miss Ida Marian McClelland were married December 29th in Christ Church, Los Angeles. Among the ushers were Dr. A. C. Thorpe, Dr. P. O. Sundin, Dr. W. N. Norton and Dr. L. P. Kaull.

We have received from Geo. I. Cochran, Esq., president of the Pacific Mutual Life, the forty-second annual statement of that stalwart company. The total assets are \$18,429,204.28, being an increase for the year 1909 of \$2,329,130.57.

The Santa Barbara County Medical Society at the annual meeting held January 10th elected the following officers: President, David A. Conrad; Vice-President, Benjamin Bakewell; Secretary, T. A. Stoddard; and Delegate to State Medical Society, Rexwald Brown.

The annual meeting of the Pima County Medical Society was held in Tucson Tuesday evening, January 18, 1910. The officers elected for the following year are: President, Ira E. Huffman; Vice-President, A. Morrison; Secretary-Treasurer, A. G. Schnabel.

Dr. Homer O. Bates of Long Beach, a prominent member of the profession there, was recently stricken with a cerebral hemorrhage producing almost complete aphasia. Dr. Bates was for many years a prominent physician in Chicago, and came to Long Beach about six years ago.

At the January meeting of the Pasadena Branch of the Los Angeles County Medical Society, Dr. A. T. Newcomb delivered his exaugural address, and Dr. John E. Janes was installed with due ceremony. The new president had been secretary of the society for thirteen years.

Bennett Medical College of Chicago has abandoned eclecticism and the entire faculty has joined the regular school of medicine. The result has been an increase of over one hundred in the class, which now numbers two hundred and forty. Dr. William F. Waugh is dean of the faculty.

Dr. W. H. Newman, a resident of Belmont Heights, a suburb recently annexed to Long Beach, has been chosen by the Long Beach City Board of Health as health officer of the "Queen of the Beaches" to succeed Dr. W. Hariman Jones, who has held the position for the past five years.

Dr. G. E. Paddleford, formerly of Los Angeles, is now president of the Huasteca Petroleum Company, state of Vera Cruz, Mexico. This company is subsidiary to the Mexican Petroleum Company. Dr. Paddleford is now constructing one hundred and fifty miles of railroad near Vera Cruz.

Dr. John K. McDonnell of Jerome is making arrangements to remove to Prescott. He will leave for New York about March 1st for a few months' special work at the Post-Graduate Medical School in that city. On returning he will occupy the offices in Prescott recently vacated by Dr. Graham.

Dr. Flora Gleason, of Corona, California, died at her home January 7th, age 60 years. Dr. Gleason graduated from the medical department of the University of Iowa, class of 1882, and had been practicing in California over twenty years. She was a highly esteemed member of the profession.

Dr. Howard A. Kelly, has been visiting Monterey, Mexico. In an interview Dr. Kelly said:

"I admire greatly the government of Mexico and the obedience of the Mexican people to the laws of the land. I think that the observance of the laws in this country is greater than in the United States."

Dr. Thomas L. Rogers, a recent graduate of Iowa State University Medical Department, has been appointed an interne in the Los Angeles County Hospital. He is a brother of Dr. F. L. Rogers of Long Beach, and has spent three months with his brother in eye, ear, nose and throat work just preceding his accepting the hospital appointment.

At the annual meeting of the Yavapai County Medical Society, held December 18, 1909, the following officers were elected: President, R. W. Graham, Prescott; Vice-President, A. J. Murietta, Jerome; Secretary-Treasurer, H. T. Southworth, Prescott; Delegate to the Arizona Medical Association, C. E. Yount, Prescott; Alternate Delegate, W. I. Linn, Prescott.

At the annual meeting of the Pomona Valley Hospital Association, the president, Dr. F. W. Thomas, reported as follows: Admissions for the year were 244; births, 35; deaths, 17; operations, 146. 60 of which were major and eighty-five minor in character. The report also went into financial details, showing the hospital to be in excellent condition.

Williams Hall has just been dedicated as a valuable addition to the Barlow Sanatorium. This building is for recreation, designed for the use of convalecents and contains an auditorium and stage, card rooms and a sun parlor. All of the twenty cottages which form a part of the sanatorium quarters are in close proximity and it will prove an exceedingly useful adjunct to the institution.

Dr. L. M. Powers, city health officer of Los Angeles, addressed a mass meeting of the citizens of Long Beach December 16th, under the auspices of the Ebell Club women of that city, the subject being "How to secure pure milk for a city." The clubwomen of Long Beach are preparing to wage a warfare on the

producers of bad milk and are promising the co-operation of their city board of health, all of whom are physicians.

The annual meeting of the Maricopa County Medical Society was held in Phoenix, January 8, 1910. O. E. Plath was elected President; Willard Smith, Vice-President; Francis H. Redewill, Secretary; and W. Warner Watkins, Treasurer. A strong committee, with Ancil Martin as Chairman, was named to attend to the entertainment of the members of the Arizona Medical Association, at the annual meeting in April.

A well-known physician, who has a practice paying \$6,000 cash per year in one of the most prosperous cities in Southern California, desires to retire on account of his health. He would sell his home and good-will for \$5,000. This is in a delightful valley two hours by rail or one hour by aeroplane from Los Angeles. The right kind of a practitioner could collect the purchase price the first year. If interested, address the editor of the SOUTHERN CALIFORNIA PRACTITIONER.

Long Beach raised \$150 by a Special Long Beach Charity Stamp Sale, for the anti-tuberculosis cause. The local Anti-Tuberculosis League and the club women of that city designated one day as Stamp Day and made the cause a popular one. They will turn one-third of the fund over to the California League for the Study and Prevention of Tuberculosis and the remainder will be used by a Citizens' League to aid in supporting a nurse for the tuberculous poor in that city.

The Board of Supervisors of Santa Barbara County have appointed the following county physicians for 1910: Santa Barbara, Dr. J. C. Bainbridge, \$1,000 a year; Carpinteria and Summerland, Dr. R. W. Hill, \$75 a year; Santa Ynez, Dr. W. J. Lewis, \$150 a year; Lompoc, Dr. F. A. Brown, \$250 a year;



Los Alamos and Careaga, Dr. G. R. Luton, \$125 a year; Santa Maria, Orcutt and Sisquoc, Dr. O. P. Paulding, \$200 a year; Guadalupe, Dr. Charles Pius, \$100 a year.

Maj. Paul Adams, surgeon of the First Brigade, N.G.C., has resigned his commission to go to Honolulu as surgeon of the Fifth Cavalry, U. S. A. Last summer, Dr. Adams took the examination given at Monterey to National Guard surgeons who wished to become auxiliary surgeons in the army. He passed the examination with distinction, and was immediately called into the regular service. Dr. C. W. Decker of this city has been appointed chief surgeon and major of the First Brigade.

Beginning with the January, 1910, issue the old established *Medical Review of Reviews* will be edited by Dr. William J. Robinson, editor and founder of the famous *Critic and Guide*, *Therapeutic Medicine* and *The American Journal of Urology*. The editorial offices of the *Medical Review of Reviews* have been removed to 12 Mt. Morris Park W., New York City. The scope of the journal will be enlarged and every department will be strengthened. The subscription price remains the same, namely, \$2.00 per annum.

The Long Beach Branch of the Los Angeles County Medical Society held their annual meeting and banquet December 21st, 1909, at the Hotel Virginia. About twenty-five physicians were in attendance. "Bubonic Plague" was the subject of the evening. Addresses by Dr. Brooks of the Marine Hospital Service and Dr. Stanley P. Black, who were the speakers of the evening. The following officers were elected for the ensuing year. President, Dr. A. C. Sellery; Secretary-Treasurer, Dr. Wm. H. Newman; Councillor, Dr. J. Watson Wood.

The mayor of Santa Barbara has appointed the following Board of Health: Dr. S. B. P. Knox, Dr. Benjamin Bakewell, Dr. T. A. Stoddard. Dr. Stoddard has recently been spending a few weeks in eastern surgical clinics. Dr. Knox has been a practicing physician in Santa Barbara for thirty years. He is a brother of President Taft's prime minister, and graduated from the University of Pennsylvania in 1866. Dr. Bakewell is the present Health Officer of Santa Barbara.

Dr. LeRoy S. Peters, who has been the popular physician-in-charge at the Sunnyside Sanatorium for some time, has just concluded arrangements with Thornton Moore, the present owner, whereby he will secure a lease on that institution, he assuming full control of same on the first of the coming month. This sanatorium, which is about a mile north of Silver City, is very conveniently located, and usually its patients are only limited by the capacity of the institution to care for them.

The officers of the Cochise County Medical Society, elected at the last annual meeting, were: President, Robert Ferguson, Bisbee; First Vice-President, F. T. Wright, Douglas; Second Vice-President, N. C. Bledsoe, Bisbee; Third Vice-President, John Hagan, Bisbee; Secretary-Treasurer, William D. Cutter, Bisbee; Censors: A. R. Hickman, Douglas; C. F. Hawley, Bisbee; John E. Bacon, Tombstone; Delegate to the Arizona Medical Association, Wm. D. Cutter; Alternate Delegate, F. E. Shine, Bisbee.

Dr. R. W. Graham of Prescott, Ariz., left January 28th for New York, whence he sailed for Vienna, for a year's special work in diseases of the eye. Dr. Graham graduated from McGill in 1904, after which he spent several months as interne in the eye department of the Royal Infirmary in Edinburgh, Scotland. During his five years' residence

in Prescott, although engaging in general practice the Doctor gave special attention to diseases of the eye, in the treatment of which he had marked success. After a year's study in Europe Dr. Graham will probably engage in special practice in one of the larger California towns.

James E. West, Esq., announces that after seven years service in the legal branch of the Interior Department—for five years as a member of Board of Pension Appeals and two years as an assistant attorney in the office of the Secretary of the Interior—he has opened an office in the National Metropolitan Bank building for the general practice of law before the Executive Departments, U. S. Supreme Court, U. S. Court of Claims, and all of the courts of the District of Columbia. We know Mr. West to be thoroughly reliable and unreservedly recommend him to any of our readers having business in our Nation's capital.

Dr. Beverly Robinson of New York, in speaking of the treatment of tuberculosis, says: "*Creosote treatment* is of great value as a *preventive treatment*, when pulmonary tuberculosis is a menace to the individual, either by reason of constitutional tendency, exposure to infection or both. By the combined, persistent, intelligent use of beechwood creosote *internally* and by *inhalation*, many patients may be saved who otherwise would die. In nearly all cases, no matter what the stage of the disease, much relief to symptoms may be obtained. To judicious rest, when required, fresh air and proper food, add creosote treatment."

The Arizona Board of Medical Examiners, reports the following results of its last three quarterly examinations:

July, 1909.

A Passed:

Dept. of M. & S., University of Michigan, 1902, aver. 83.6%.

University of Louisville, Ky., 1909, aver. 86.4%.

University of Nashville, Tenn., 1909, aver. 81.7%.

B Failed:

Dept. of M. & S., University of Michigan, 1909, aver. 72%.

Medical Dept., Hospital College of Medicine, Central University of Kentucky, 1903, aver. 74.9%.

October, 1909.

A Passed:

University of Louisville, 1898, aver. 76.8%.

Hospital College of Medicine, Louisville, 1903, aver. 75%.

Detroit Medical College, 1880, aver. 82.1%.

University of Iowa, 1908, aver. 76.6%.

Bennet Medical, Chicago, 1907, aver. 76.9%.

P. & S., South Carolina, 1905, aver. 87.9%.

University of Michigan, 1909, aver. 79.8%.

P. & S., Southern California, 1909, aver. 77.4%.

P. & S., Atlanta, Ga., aver. 80.9%.

Rush Medical, 1903, aver. 81.8%.

B Failed:

University of Louisville, 1909, average 69.6%.

January, 1910.

A Passed:

Hahnemann College and Hospital, Chicago, May 18, 1906, 76.5%.

Hahnemann College and Hospital, Chicago, May 27, 1907, 81%.

Union Medical College, Kansas City, Mo., April 7, 1905, 75%.

B Failed:

University of Louisville Medical Dept., June 30, 1909, 68.6%.

University of Louisville Medical Dept., June 30, 1909, 73.3%.

In cessation of breathing during chloroform anesthesia a rapid dilation of the sphincter ani is said to be one of the best procedures for resuscitation.

## OF GENERAL INTEREST

## GIRL AND WOMAN.\*

BY WILLIAM LANSING, M.D., LOS ANGELES, CAL.

This book is of more interest than a first glance at the title might indicate, for it treats, not of the two periods in a girl's life—childhood and womanhood, but rather of the long intervening period when she is in the transition stage.

This period, the writer tells us, is from the age of twelve to twenty-one, and requires, on the part of the parent, thoughtful care and direction in order to develop in this slowly maturing plant the best results when she shall have attained womanhood.

We are not given a technical treatise solely on the physical side of the girl's life—and such a sane, sensible basis is taken from the physical, moral and ethical standpoint as to come easily under the comprehension of the average parent.

The central feature of this period is the development of the reproductive organs and of the functions connected with them. This growth is accompanied by changes mental, moral and physical; the mind, emotions and character all being affected.

Great stress is laid on this period of "tumultuous growth" when a child is first reaching out toward maturity, "when the impulse to activity, now making itself felt for the first time, proceeds from the great elemental instinct *sex*, which is to be one of the most powerful agencies of her life." The characteristics attending this development are traced, showing the awakening of the mental faculties from the "imitation of childhood," to the period when the capacity to reason, judge,

analyze begins; this period when the emotional sense develops more rapidly than the intellectual sense, and the moral sense seems to be in a measure lacking, as nature is so keenly alive to any disturbance.

Self-consciousness, morbid conscientiousness, extreme religious tendency, and many unexpected traits, which frequently develop in the growing girl, the author tells us, are the outcome of this age which are the result, very largely, of the nervous strain to which the system is subjected while nature is adjusting itself.

It would almost seem as if heredity and environment were lost sight of by Dr. Latimer, for she attributes many unpleasant and unexpected traits, which begin to assert themselves at this age, to be almost entirely due to the period of development, eliminating entirely the possibility of any hereditary tendency, forgetting, apparently, the vicious traits of our remote ancestors when they were prowling for prey or swinging from the branches of trees in some primordial jungle.

However, the advice to treat this growing plant with a mind fully alive to its needs, to give the body the best nourishment, to lead the mind into the ways of peace, is most excellent and should be taken to heart, for the growing girl is often neglected even in the homes of those who live in comparative luxury.

The author most strongly condemns the "laissez-faire" method in regard to life and sex and demonstrates the method by which parents can remove

\*Girl and Woman, a book for mothers and daughters, by Caroline Wormeley Latimer, M.D., M.A., formerly instructor in biology, Women's College, Baltimore, with an introduction by Howard A. Kelly, M.D., professor of gynecological surgery, Johns Hopkins University. New York and London, D. Appleton & Co., 1910.



the mystery of life to the inquiring mind by tracing the development of life from its lowest to its highest form. Parents are becoming so well educated along these lines that the careless ones are considered only short of criminal, and the Doctor deprecates most decidedly any aversion on the part of parents to speak plainly on the subject of reproduction. She quotes: "This so-called delicacy of discussion is a veritable Minotaur that exacts its yearly tribute in the shape of boys and maidens," and yet we must take exception to the writer herself, in not speaking more plainly of the danger of the sexes in their relation to each other. She quotes Judge Lindsay of the Juvenile Court of Denver as follows: "I say emphatically that nine-tenths of our girls who go wrong do so because of ignorance due to the carelessness of parents." While this idea is strongly impressed by the writer and she dwells on the dangers of this ignorance, we believe she might have helped mothers who are anxious to place all the dangers of life before their children by speaking a little more in detail, for all girls have not the opportunity to be instructed in biology, anatomy and physiology as is urged upon us to do.

The much mooted question of allowing the same mental strain for girls as boys is touched upon and Dr. Latimer inclines to the view that the girl is handicapped on account of the nervous strain to which she is subjected every month. If the system is overtaxed nature demands her tribute in a corresponding loss of vitality, and the author insists "that the essential hygiene of the menstrual period is that the burden of life, whether mental or physical, shall be lightened in one way or another during that period."

The idea of delicacy and fragility of the body has been so long tabooed that mention of it seems hardly necessary, but too much stress cannot be laid on

the physical emancipation of girls and women which makes the full chest, the strong arm, the vigorous stride, the tanned cheek, things to be proud of and demonstrate most clearly the joy of life in the "open" and which is above all the *sine qua non* of health.

The chapter on Personal Hygiene appeals particularly to us in these days when "beauty doctors" are so very popular and seem to be invading homes in all walks of life. The general rules given for the daily routine in the care of the body are sensible and not so elaborate but what every girl can follow habitually. The daily bath—cold, if one's constitution permits; if not, warm; the very sane advice to keep the face thoroughly cleansed by the good, old-fashioned process of an abundance of hot water and soap, and not by the exclusion of them, as the face faddists advise; the care of the teeth, hair, nails are all essentials which the girl who wishes to be wholesome and attractive should follow with care. Attention is called to the fact that the school-girl is liable to suffer from neglect of two things, sleep and an abundance of nourishing food.

The girl's luncheon and breakfast, two of the most important meals, have not the same careful supervision that they had when she was younger, and ill-health can frequently be traced to insufficient and unwholesome food.

The same thing prevails as regards sleep, which at this time is often allowed to be irregular, which is a serious menace to health.

The minor ailments, such as headache, are most frequently traced to constipation, that *bête noir* of the school-girl. A mixed diet containing waste matter is essential and an abundance of water, all stimulants, even to coffee and tea, being excluded. Too much stress cannot be laid upon the subject of constipation, and one of the first essentials taught the girl who is beginning to care

for herself in personal matters is the necessity of a daily thorough cleansing of the bowels.

The physiological aspect of the growing girl is most important, but scarcely less so is her life from an ethical standpoint. Any hard and fast rule is a fatal mistake. Relaxation of the mind is just as important as relaxation of the body, and a careful selection of books which form so large a part of a girl's recreation is imperative, for a girl's life is largely influenced by the books she reads, and the formation of her tastes cannot be lightly regarded by her parents. If we take Dr. Latimer's precepts to heart we will probably make some personal sacrifices, but will be repaid by finding our daughters blossoming like the rose into full and perfect womanhood instead of being blighted by ill-health and a weak personality.

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### THE NEWSPAPERS AND THE "QUACK DOCTOR" ADS.

In its Advertising Talk, Number 83, the *Los Angeles Evening Record* recently printed the following very sane, and certainly very much needed comments. It is a pity that the lay press is so reluctant to accept the principles therein laid down:

"Whatever may be its business or editorial policy or convictions a newspaper lends to a degree its own indorsement to every advertisement which it prints, says the *Fourth Estate*. And recognizing that the standing and influence of a paper has much to do with the effectiveness of an advertisement, successful advertisers select the publication that most effectively influences the class of business they desire to reach.

"There is a vital difference between a billboard advertisement and an advertisement in a good newspaper. The newspaper advertisement is surrounded by news items and editorial paragraphs that have behind them the

authority of the newspaper. The effect of these articles is to claim the confidence of the reader.

"The result to the advertiser is that what he has to say is believed also. Every department store manager knows well the effect of his newspaper advertising. But unfortunately an advertisement exploiting a wholly illegitimate enterprise shares equally in public credulity with the advertisement of justly reputable concerns. And the newspaper which accepts and continues to publish advertising that exploits illegitimate concerns simply enters into a partnership whereby the newspaper through its good standing contributes the appearance of good faith, the advertisers contribute the fraud, and the public contributes the victims.

"This class of advertising is confined almost wholly to fake medical specialists. The abominable and atrocious frauds practiced by these hypocritical fake "physicians" is utterly beyond exaggeration. Clothing their fraud in the mysteries of the medical profession they prey upon the most vulnerable points in a young man's nature, fear and shame. Their art is to convince the victim that he has some loathsome disease, of which he is in fact absolutely free, or to enormously exaggerate the seriousness of the disease that he may have, and this graft is to prolong the 'treatment' just as long as another dollar can be extracted from the victim.

"These fakes have absolutely nothing in common with the medical profession except in name. They are wholly dependent upon newspaper influence for their very existence, and they are a fraud and an abomination that, in the name of all that is decent, should be expelled from the community."

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Pomegranates, cranberries, blackberries, sumach berries, dewberries, raspberries, barberries, quinces, pears, and wild cherries are astringent.



### THE FIRST AVIATION HOSPITAL.

The Aviation Meet in Los Angeles from January 10th to January 20th inclusive was an impressive success. An average of 35,000 people each day saw the flying of Paulhan, Curtis and a half dozen other aviators. At the request of the committee the California Hospital had an Emergency Hospital on the grounds. Fifty-four patients were treated. Only one was an aviator.

Dr. J. T. M. Allan was surgeon in chief with the following attending surgeons:

Monday, January 10, Dr. Alfred Fellows, Dr. R. L. Cunningham.

Tuesday, January 11, Dr. J. R. French, Dr. C. G. White.

Wednesday, January 12, Dr. C. W. Pierce, Dr. Donald W. Skeel, Dr. Duncan D. McArthur.

Thursday, January 13, Dr. J. J. O'Brien, Dr. E. J. Johnston.

Friday, January 14, Dr. H. G. McNeil, Dr. C. W. Anderson.

Saturday, January 15, Dr. P. O. Sundin, Dr. J. R. Cowan.

Sunday, January 16, Dr. A. F. Godin, Dr. C. W. Jenks, Dr. H. H. Koons.

Monday, January 17, Dr. W. R. Maloney, Dr. Evan Jenkins.

Tuesday, January 18, Dr. H. M. Voorhees, Dr. L. J. Huff.

Wednesday, January 19, Dr. C. W. Decker, Dr. Rex Duncan.

Thursday, January 20, Dr. F. L. Anton, Dr. G. A. Laubersheimer.

Miss Williamson, superintendent of nurses of the California Hospital, had charge, assisted by four nurses, who were on duty each day during the flights.

The aeroplane will no doubt prove of practical service to the profession within the next twenty years. The time is not distant when every prominent practitioner will have his aviator employed—as he now has his chauffeur—at say one hundred dollars per month, and will gracefully rise like a bird, out of the dust and noise. At the close of the last day the aviation committee presented Miss Williamson with a gold medal as a token of their appreciation.



## BOOK REVIEWS

**EXERCISE IN EDUCATION AND MEDICINE.** By R. Tait McKenzie, A.B., M.D., Professor of Physical Education, and Director of the Department, University of Pennsylvania. Octavo of 406 pages, with 346 illustrations. Philadelphia and London. W. B. Saunders Company, 1909. Cloth, \$3.50 net; Half Morocco, \$5.00 net.

Solon (Dialogues of Lucien) 2500 years ago said: "That which those who winnow wheat do for it, gymnastic exercises accomplish in our bodies for us." This demonstrates the fact that the necessity of physical education was thoroughly appreciated by the ancients.

The author says: "It is to Germany that modern physical education must look for one of the most powerful influences in its development. The German system is divided into six large groups:

"1. Tactics, embracing marching in all its forms.

"2. Free exercises, embracing all forms with hand apparatus, like short and long wands, dumb-bells, rings and clubs.

"3. Dancing steps, principally for girls, including all the movements from the simple gallop to the most complicated forms executed by expert dancers.

"4. Apparatus work on the horizontal bar, parallel bars, long and side horse, buck, suspended rings, ladder, poles, rope, round swing, see-saw, balance board, swinging board, pulley-weights, storming board, and vaulting table.

"5. Track and field work, such as high, broad, and deep jumping, hop, step and jump, running, hopping, putting the shot or stone, throwing the javelin or discus, lifting or putting up of iron weights and stones, pole vaulting, swimming, skating, fencing, boxing, wrestling, and shooting.

"6. Games and plays, the enumeration of which would take too long.

"The exercises for children are divided into six or eight grades, to correspond with the number of years in the common or grammar schools."

"The Soft Business of Japan" is the title of a chapter that gives a graphic exposition of the jiu jitsu. This is indeed very interesting.

The system of Francois Delsarte (a Frenchman born at Solesme, in 1811) is described in full.

"Playgrounds and Municipal Gymnasiums," "Physical Education in Schools," "Physical Education in the College and University," "Application of Exercise to Pathologic Conditions," "Flat-Foot and Its Treatment," "Scoliosis—Its Causes, Varieties, Diagnosis, Prognosis," "Scoliosis—Its Treatment," and "Obesity—Its Causes and Treatment," are all valuable chapters thoroughly illustrated. There is place for this work and we are glad it has arrived.

**TREASURES OF TRUTH.** By Geo. F. Butler, author of *Love and Its Affinities*, *The Isle of Content*, *Sonnets of the Heart*, etc. Boards, 75 cents; Leather Bound, \$1.00. Published by S. DeWitt Clough, Ravenwood, Chicago. 1909.

Dr. Butler says: "These Treasures of Truth have come to me with the years and have soothed, strengthened, and inspired me in the arduous work of my profession." The book is full of excellent sayings, e. g., "He alone is the happy man who has learned to exact happiness, not from ideal conditions, but from the actual one about him." "Unhappiness is the hunger to get. Happiness is the hunger to give." "Kind words are balm to the soul. They oil the entire machinery of life."

**FUNDAMENTALS AND REQUIREMENTS OF HEALTH AND DISEASE.** In three parts. By Thomas Powell, M.D., Member of the American Public Health Association: The American Health League, and the American Association for the Advancement of Science. Part One—The New Vital Philosophy. Explains the movements of the living organism by showing that they are produced by the vitomotive-power; that this agent has a dynamic equivalent of forty atmospheres; what this mighty power is; from what element of the food it is developed, and how it sets the vital machinery in motion. Part Two—The New Etiology and Pathology. Explains the various morbid processes,

from congestion and inflammation to necrosis, carinosis and tuberculosis, by closing the remote and hitherto unsuspected cause thereof. Part Three—The New Prophylaxis and Therapeutics. Discloses the measures, medicinal, electrical, mechanical, thermal, manual and regimenal, required for the elimination of pathogen, the newly discovered cause of disease. Illustrated with many original drawings. Price \$5.00. The Powell Publishing Company, Los Angeles, Cal.; London, England.

As the title page bears evidence, this is indeed a wonderful book. The printing is well done. The author has personally selected the type so that every page is restful to the eye. It is handsomely bound and is in all respects a Los Angeles product. Dr. Powell frankly says (page 27 of preface): "I set out nearly thirty years ago with the definite purpose of performing the twofold task of saving myself from a plainly impending physical breakdown and by doing for the medical sciences what Sir Isaac Newton did for the physical." The following quotation from Ralph Waldo Emerson is especially fine: "Whoso would be a man must be a nonconformist. He who would gather immortal palms must not be hindered by the name of goodness, but must explore if it be goodness. Nothing is at last sacred but the integrity of our own mind. Absolve you to yourself, and you shall have the suffrage of the world."

The many quotations from the highest authorities bear evidence that the author is a student of wide reading.

His final conclusion in regard to Etiology and Pathology is that "all congestion, infection, inflammation, tuberculosis, carinosis and fibrosis depend upon a species of viscial waste matter which has been termed Pathogen." Space forbids a thorough review of the work.

TEXT BOOK OF MEDICAL AND PHARMACEUTICAL CHEMISTRY. By Elias H. Bartley, B.S., M.D., Ph.G., Professor of Chemistry, Toxicology and Pediatrics in Long Island College Hospital; late Dean and Professor of Organic Chemistry in the Brooklyn College of Pharmacy; late Consulting Chemist to the Department of Health of the City of Brooklyn; late President of the Board of Pharmacy of the

County of Kings; Member of the American Pharmaceutical Association; of the American Chemistry Society; Fellow of the American Association for the Advancement of Science, etc. Seventh Revised Edition. With ninety illustrations. Philadelphia: P. Blakiston's Sons & Co., 1012 Walnut st. 1909. Price, Cloth, \$3.00.

This good, old reliable comes to us with its seven hundred sixteen pages of solid matter. It looks like business from cover to cover. As this is a work for medical students the author constantly keeps in mind the applications of the science to practical medicine. There is no necessity for apology for the space given to the elucidation of the Metric System. Every practitioner in order to read understandingly the best scientific works must know the Metric System.

Dr. Bartley says, in speaking of the SIZE AND WEIGHT OF MOLECULES.

"That molecules actually exist, and that they are in constant motion in straight lines within the gas, there seems to be at present little room for doubt. Various recent experiments, drawn from many sources, have given us proof to these facts. Starting from certain well-established facts, physicists have been able to calculate the absolute number of molecules in a given space, their absolute weight, size, velocity, and spaces between two neighboring molecules.

According to these calculations, a cubic centimeter of air contains twenty-one trillions of molecules; and according to the law of Avogadro, all other gases must contain the same number in the same volume. Ten trillions of air, or 144 trillions of hydrogen molecules, will weigh one milligram. The mean velocity of the molecules of air at 0°C. (32°F.) is 485 meters (1591 ft.) per second; and of a molecule of hydrogen gas is 1844 meters (6050) ft. per second. Of course, with this inconceivable number of molecules in the small space of one c.c. and all moving at the velocity mentioned, no one molecule could move long in one direction without colliding with another molecule. The number of shocks that each molecule receives, in the case of hydrogen gas, has been calculated to be 9480 millions per second, while the mean distance a molecule moves in its path before colliding is about 0.0001855mm. which may be taken as the distance between two molecules. The diameter of the water molecule, 0.00000044mm. Free path, 0.0000649mm."

The work throughout appeals espe-

cially to the physician. The chapter on Milk and the section on Urine are particularly valuable.

In conclusion the author gives the following:

LIST OF WORDS WHOSE USE SHOULD  
BE AVOIDED IN FAVOR OF THE  
ACCOMPANYING SYNONYMS.

For—	Use—
sodic, calcic, zincic, nickelic, etc.....	sodium, calcium, zinc, nickel, etc.
arsenetted hydrogen....	arsin.
antimonetted hydrogen....	stibin.
phosphoretted hydrogen....	phosphin.
sulfuretted hydrogen....	hydrogen sulfid, etc.
beryllium.....	glucium.
niobium.....	columbium.
glycerin.....	glycerol.
hydroquinone (and hydrochinon).....	quinol.
pyrocatechin.....	catechol.
resorcin, etc.....	resorcinol, etc.
mannite.....	mannitol.
dulcite, etc.....	dulcitol, etc.
benzol.....	benzene.
toluol, etc.....	toluene, etc.
thein.....	caffein.
furfural.....	furfuraldehyde.
fucosol.....	fucosaldehyde.
anisol.....	methyl-phenate.
phenol.....	ethyl-phenate.
anethol.....	methyl-allyl-phenol.
alkylogens.....	alkyl-haloids.
titer (n).....	strength or standard.
titer (v).....	titrate.
monovalent.....	univalent.
divalent.....	bivalent, etc.
quantivalence.....	valence.

**INTERNATIONAL CLINICS.** A quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world, edited by W. T. Longcope, M.D., Philadelphia, U. S. A., with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; A. McPhedran, M.D., Toronto; F. Billings, M.D., Chicago; Charles H. Mayo, M.D., Rochester; Thomas H. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Richard Kretz, M.D., Vienna; with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume IV. Nineteenth Series, 1909. Philadelphia and London, J. B. Lippincott Company.

Volume IV contains among its contributors such men as Cullen of Baltimore, Deaver of Philadelphia, Flexner of New York, Rodman of Philadelphia, and Louis Hamman of Baltimore.

In this volume there are two articles, either of which stamps the International

Clinics as absolutely indispensable to the general practitioner.

The first of the two articles referred to is one on

ANTIMENINGITIS SERUM AND THE RE-

SULTS OF ITS EMPLOYMENT.

It is a short article, only embracing twenty pages, but in it is given complete regimen of the work taken up by Flexner in this line, which of itself is sufficient to mark him one of our greatest men in medicine today.

In it is given 1st. The Preparation and Standardization of the Antimeningitis Serum. 2nd. Manner of Therapeutic Action. 3rd. Indications for the Employment of the Antiserum. 4th. Manner of Administering the Antiserum. 5th. Results of the Serum Treatment. In all there are 712 cases reported. These cases have occurred in the United States, Canada, Great Britain and France. There were 448 recoveries and 224 deaths, giving a mortality of 31.4 per cent. When it is recognized that under the old method of treatment the mortality was 90 per cent., the value of Flexner's work becomes appreciable. In perusing the article one is impressed with the wholly unprejudiced attitude in which the subject is given by the author. In Paris where they have been using the serum under the direction of Flexner, they report a mortality of 18 per cent. among serum-treated cases, and 83 per cent. among cases occurring in Paris at the same time and treated by other methods. An extensive bibliography is attached to the article.

The second article referred to is by Louis Hamman of Baltimore on

THE USE OF TUBERCULIN IN TREATMENT.

The discussion is taken up by Hamman in a manner that is free from prejudice, taking it through from the time of Koch's original communication in 1890 and brings it down to the present time.

In the beginning of his article he says: "We now look with amazement and horror at the charts of the period



when patients already suffering and ill unto death were subjected every day to intense rigors followed by high fever and the symptoms which perhaps only those who have had a severe tuberculin reaction can fully appreciate. The repulsion on the part of the profession was so intense that one prominent member did not hesitate to declare that to subject a patient to the tuberculin treatment was cause sufficient for a civil suit."

He then goes on to describe at some length the various preparations that are used in the tuberculin treatment.

He then takes up the subject of tuberculins as produced from human type and bovine type. He says: "Spengler attempts to distinguish the two in the sputum by methods of staining, but his results have not been confirmed. Detre's differential cutaneous test has been shown to be unreliable. We are certainly no nearer accuracy if we follow Nathan Raw and call all gland, bone, serous membrane, and miliary tuberculosis, bovine infections. Such inconsequent classifications are no longer possible in view of the results of careful and painstaking cultural investigations." He says: "Pottenger has offered some clinical evidence to support the justice of Spengler's claims. In a case of pulmonary and glandular tuberculosis he noted whenever human tuberculin was given that the glands improved while the pulmonary lesion grew worse, and when bovine tuberculin was administered the glands markedly enlarged while the pulmonary lesion improved. Such a remarkable observation needs confirmation before it can be generally accepted. In our own experience we have been unable to see any such marked difference in the action of tuberculin from the two sources.'

Further on he says: "It is important to emphasize that this increasing sensitiveness develops only in infected individuals. In the uninfected no number

of repeated injections, no matter how small or how large they may be, will ever produce a reaction."

On page 42 he says: "That when relapses occur sensitiveness reappears; and that as a general rule in manifest tuberculous disease, when it is impossible to overcome the patient's hypersensitiveness and procure even a moderate measure of tolerance for tuberculin, improvement in the general and local conditions does not occur."

In speaking of his own work during the past three years among patients at Johns Hopkins Hospital, he says: "Other than the general condition of the patient we know of no absolute contraindication to the use of tuberculin. A tendency to haemoptysis is not increased and unless the hemorrhage be large need not deter its use. Pregnant women when cautiously treated do particularly well on tuberculin. Epileptic seizures are not more frequent or more severe. Compensated valvular disease of the heart is certainly not unfavorably influenced. We have never treated patients with nephritis, but this we would certainly consider a strong contraindication. We have never seen or heard of an ill effect due to the careful use of tuberculin upon the cautious plan outlined."

This, it will be noticed, is really the ground taken by Trudeau, Sahli and Denys. He speaks of it as being the plan adopted by these men, and as being opposed to the procedure taken by Lowenstein and others.

On page 46 he says: "The avoidance of reactions, then, is the crux of successful tuberculin treatment."

He quotes Denys as unwilling to attribute to tuberculin any febrile rise that comes on more than forty-eight hours after the injection.

Later on he says that "while it is never advisable to carry the dose of tuberculin beyond the point where reactions threaten further advance, it is always desirable to reach large doses, or

at least the full measure of a patient's tolerance. In some instances unusual improvement has been absent until large doses were attained, when it was rapid and striking."

Again he says: "It is always best when fever is present to attempt its reduction by rest in bed before beginning tuberculin. When a slight daily rise of temperature persists and other conditions are favorable tuberculin will at times inaugurate decided improvement. (Such an occurrence, however, is exceptional, and where rest in bed fails to reduce fever tuberculin seldom does good.)"

The reviewer having been more or less interested in the tuberculin treatment for tuberculosis for years, and having used it to some considerable extent, is greatly impressed by this article of Hamman and really wishes that no one would attempt to use tuberculin without reading this article.

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THE PRACTICAL MEDICINE SERIES, comprising ten volumes on the year's progress in Medicine and Surgery, under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School; Volume X. Nervous and Mental Diseases, edited by Hugh J. Patrick, M.D., Professor of Neurology in the Chicago Polyclinic; Clinical Professor of Nervous Diseases in the Northwestern University Medical School; Ex-President Chicago Neurological Society. Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School; Ex-President Chicago Neurological Society. Series 1909. Chicago, The Year Book Publishers, 49 Dearborn Street. Price of series of ten volumes, \$10. Price of each volume when sold separately, \$1.25.

On page 72 a case of influenzal meningitis occurring in Johns Hopkins Hospital is reported by B. A. Cohoe, and the subject is thoroughly discussed. On the following page, after giving the symptomatology, the prognosis is given as grave. Out of twenty-six cases reported, a fatal issue resulted in all the cases but four.

On page 84 a case of blastomycotic lesions is described by E. R. LeCount. A former case was reported by LeCount and Meyers.

On page 187 an epidemic of acute anterior poliomyelitis occurring in Salem, Va., and vicinity, is reported by R. M. Wiley and J. C. Darden, a number of individual histories being added. The epidemic occurred in the summer of 1908. The first case developed June 2, and the last August 10, and not a single case was reported from any other place in the State. There were twenty-five cases in Salem and the adjacent country, whereas in Roanoke, a city of 35,000 inhabitants, seven miles east of Salem, connected by a trolley and daily visited by scores of Salem people, not a case developed, during this period, though there was one case in September.

Volume IX of same series on Skin and Venereal Diseases, by Baum and Moyer, is an exceedingly interesting one. William L. Baum is Professor of Skin and Venereal Diseases, Chicago Post-Graduate Medical School.

On page 82, under "Syphilis," is reported a case of syphilitic reinfection two years after the first primary lesion. Hutchinson is reported as saying that a reinfection may occur as early as eighteen months, and that it may be more severe or lighter than the first infection.

Perhaps one of the most interesting facts of this series is that found in the last part of Volume IX by Harold N. Moyer, under the head of "Miscellaneous Topics."

On page 195, under the subject of "Examination Without Consent," is reported an interesting case coming up in the Scottish courts in which Lord Justice Bramwell upheld the instructions given to the jury, and that there had been no evidence that the girl's wish had been overborne by violence or threat. Lord Bramwell added that the doctor had acted kindly throughout, but stated that the wish of the master and mistress was no authority in the eye of the law for a doctor to examine a patient against her consent. His lord-

ship was of opinion that the proceeding was altogether a high-handed one.

Williamson, in the *Edinburgh Medical Journal* of December, 1908, furthermore states, "that cases will soon come up in connection with the law for medical inspection of school children, as he does not think that a medical officer has any legal right to enter a school and examine these children without the consent of the guardians or parents."

Under "Operations Without Consent" he reports the following: "In a recent American case a surgeon told a lady that she required to have a slight operation. She gave her consent, and he performed a hysterectomy. The patient sued the surgeon, and the court, expressing the opinion that a surgeon was not entitled to remove any organ without the patient's complete concurrence, awarded substantial damages."

On page 199 Moyer gives a German decision against

#### EDDYISM

as follows: "Our age is rich in contrasts. In spite of the great enlightenment in the field of religion, mysticism flourishes today more than ever, and to this latter circumstance is owing the introduction and spread of Eddyism in Germany. In spite of repeated exposures by the press, the representatives of this form of quackery still find believers who seek the help of God for the removal of disease in return for money payments to His unworthy representatives. Lately a Berlin court has expressed itself in no ambiguous terms regarding Eddyism, and the decision, which shows an unusually accurate conception of the matter, even for a judge, should be widely known.

"A laborer of that city whose wife and child had been treated unsuccessfully by a prayer healer, sued for the repayment of 60 marks which he had paid for the treatment. Although the lower court dismissed the suit, the higher decided that the prayer healer must repay the 60 marks with interest.

In the decision it was emphasized that the contract which the complainant had made with the prayer healer was against good morals. It would be completely incompatible with healthy social conditions if judicial recognition should be given to contracts by which one party, for a stipulated sum, should make use of his pretended intimate relations with the deity in order to induce a pretended intervention of supernatural power in the life of other persons. The belief that there is some power of special divine grace for healing the sick may exist in certain circles. But laying claim to such a healing power in connection with the exercise of a trade for making money based on such healing power is contrary to the general moral sentiment and can not demand the protection of the courts. Moreover, the public interest in a regular system for the care of health is endangered if, by the influence of Eddyism, patients are deprived of suitable and timely treatment by physicians who should be the chosen guardians of the public health."

On page 207 occurs the following interesting article on

#### CRIMINAL ABORTION.

"W. B. Dorsett calls attention to the frequency of criminal abortion and to the fact that the laws are not yet sufficiently explicit to secure the conviction of the abortionist. The indifference of the clergy, of the press and of society in general, throws an added responsibility on the medical profession. He cites a statement of Justice John Proctor Clark to the effect that 100,000 abortions are annually committed in New York, and to an estimate of Dr. C. B. Bacon that from 20% to 25% of all pregnancies terminate in abortion, and that of this per cent one-half are from induced abortion. Dorsett proposes two remedies: 1. The obligatory teaching of medical jurisprudence and medical ethics in its true sense in our medical colleges. This should be statutory, and medical examining boards should be



empowered to enforce the laws of their States and to declare all schools not requiring a full course in medical ethics not in good standing and their graduates ineligible to practice medicine. 2. The enactment of good and sufficient laws and the amendment of insufficient laws now on our statute books."

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A TEXT-BOOK OF SURGICAL DIAGNOSIS. For Students and Practitioners. By Edward Martin, M.D., Professor of Clinical Surgery, University of Pennsylvania, Philadelphia. Very handsome octavo of 764 pages, with 445 engravings, largely original, and 18 full-page plates. Cloth, \$5.50, net; Lea & Febiger, Philadelphia and New York.

It is always an evidence of progress in any branch of medicine when a number of books on diagnosis are produced. Their number in itself is an evidence of their appreciation by the profession. A publisher is not apt to follow his competitors unless they have produced a book that is demanded by the doctor and whose sale will show a profit for the publisher.

There is no branch of medicine in which early diagnosis is more valuable than in surgery. As a rule, however, this early diagnosis is in the hands of the general practitioner, who first sees the case. The patient therefore depends for the simplicity and safety of early intervention upon the general practitioner and he should be qualified to determine at the earliest moment when matured surgical judgment is needed. It is unfortunately often true that when the diagnosis can be made with ease the time for surgical measures is past. Recognizing this difficulty in early diagnosis we note this portion of a sentence as particularly commendable. . . . "When it becomes generally recognized that the diagnosis of malignancy should be formulated by wide removal and microscopic examination of any persistent outgrowth, infiltration or ulceration which is not certainly benign." . . . It is therefore in the interest of early diagnosis in its relation to helpful and curative surgery that this book is written, hence the author has laid stress

mainly upon symptoms of major and deciding moment and upon the operative and laboratory means by which a conjecture may be transformed into a probability or a certainty. The book opens with a chapter by Longcope on Laboratory Diagnosis. It is valuable and safe and does not claim too much, particularly in the section on the blood. We have all been disappointed in the expert information that was to be derived from the examination of the blood as an aid to bedside diagnosis.

The next chapter on the Application of the X-Rays in Surgical Diagnosis is by H. K. Pancoast, and is the best chapter on this subject that has come to my notice for every-day work. It shows us clearly just what to expect from this method, its successes and failures.

In the article on the lymph vessels and glands the author rather leaves us in the dark as to the results of wounds of the thoracic duct at the root of the neck during extensive operations. Most of these wounds heal in a comparatively short time, in our experience, and do little, if any, damage.

The chapters on the muscles, tendons, bursae and the bones and joints, contain an amazing amount of well-digested information most clearly stated. Chapter XI, one of the largest in the book, is on Disease of the Nervous System. It occupies 84 pages and is by T. H. Weisenburg. It will be found to be of real service to him who seeks information on the diagnostic factors in surgical diseases of this important system. It is very far above the average of such.

In the chapter on the head, face and neck, we are glad to see that Martin says that the diagnosis of intracranial hemorrhage in the new born can be diagnosed with absolute certainty only by exploration. The pages devoted to the ear, eye and nose seem to me to be particularly valuable to the general physician in search of diagnostic points to

help him unravel the problems of these more special diseases and to aid him in knowing when to refer them to one trained in their treatment. They seem particularly well chosen, with clear language, without ambiguity, and unusual terseness of diction that may be depended on for information without persiflage.

Pyorrhea Alveolaris is gradually but surely winning its way into surgical literature. Martin gives it the consideration that it merits and correctly says that it is at times the underlying cause of profound anaemia, endocarditis, and the joint and systemic expression of chronic sepsis.

Actinomycosis is certainly more frequent in the West than in the East. In California many of us see one or two cases from time to time, and to us a fuller consideration of this condition would be very acceptable. It is undoubtedly on the increase here.

Martin's statement that branchial cysts (page 306) are due when placed laterally to imperfect closure of the second branchial cleft seems rather dogmatic as the third cleft is perhaps as often the site of these cysts as the second. At least this is our personal experience and others in the literature report similar findings.

There is no mention made of the type of neoplasm that is found in the carotid body; it is simply called a tumor. This is certainly an instance when early diagnosis is desirable. It would seem wise to call attention to the liability of this body to become the seat of malignant growth. It is, of course, but fair to state that some writers believe that some of the tumors in this body are benign, but this, however, is not the general opinion.

The 105 pages devoted to the upper extremity are extremely valuable. They are prepared with much care and skill and are to be highly commended as safe diagnostic guides to the multifarious abnormal conditions of that re-

gion, including an excellent consideration of fractures.

These remarks apply equally well to the chapter on the Abdomen; it is astonishing how much reliable information is comprised in but seventy-nine pages on this most important region of the body. We would hesitate to differentiate syphilis from splenic anaemia or Banti's Disease as suggested on page 531, alone by the fact that the latter did not respond to antisypilitic treatment. We would like to add to this the complement deviation method of Wassermann (or Negochi's modification) as suggested on page 23 of this book. A very large percentage of syphilitics will respond to this test in our experience.

Upon reading the chapter on the lower extremity (Chapter XVII) we find that it is prepared with the same care and skill that was observed in the chapter on the upper extremity. The same general plan is carried out and the pages are just as useful.

The next chapter, that on the Genito-Urinary Organs, is, as we would expect from one of the authors of a text-book on Genito-Urinary and Venereal Diseases, very well and carefully arranged. It is replete with trite diagnostic aphorisms.

The final chapter on Gynecological Diagnosis is by Brook M. Anspach and is a very good one. A future edition will no doubt devote more attention to the gynecic diseases occurring before the age of puberty, and probably a modification will be made in the statement that Kraurosis Vulvae is a very rare condition.

One finishes reviewing this book with a sense of congratulation for the author who has so well and correctly covered the broad field of surgical diagnosis in a single volume. Many of the illustrations are original and they all aid the text.

American surgery is the richer for this valuable book by an eminent American surgeon. WILLIAM A. EDWARDS.

FIFTH ANNUAL REPORT OF THE HENRY PIPPS INSTITUTE FOR THE STUDY, TREATMENT AND PREVENTION OF TUBERCULOSIS. February 1, 1907, to February 1, 1908. An Account of the General and Special Clinical and Pathological Work Done by Members of the Staff at the Institute During the Year. Edited by Joseph Wash, A.M., M.D. Published by the Henry Phipps Institute, 238 Pine street, Philadelphia. 1909.

This excellent report of more than 450 pages continues to maintain the high standard in evidence in previous reports. The amount of work done by the medical staff of the Phipps Institute for the fifth year covering February 1, 1907, to February 1, 1908, was evidently very large as judged by this report.

Dr. L. F. Flick, Medical Director, has surrounded himself with a group of hard workers. The various monographs contained in the present volume: Clinical and Sociological Report of the Year, by Lawrence F. Flick; Studies of the Bone-marrow in Pulmonary Tuberculosis, by Wm. W. Cadbury; Elimination of Tubercle Bacilli by the Intestines, Jr. Joseph McFarland and E. J. Beardsley; Tenderness in Pulmonary Tuberculosis, Especially Percussion Tenderness, C. M. Montgomery; The Opsonic Index in Pulmonary Tuberculosis, J. D. Blackwood; Laryngological Report of the Year, George M. Coates; Neurological Report of the Year, D. J. McCarthy and Horace Carncross; Fibrosis of the Lungs, H. R. Landis; Pneumothorax, by W. B. Stanton; Pathological Reports, by Joseph Walsh and C. Y. White.

THE PRINCIPLES OF HYGIENE. A Practical Manual for Students, Physicians and Health Officers. By D. H. Bergey, A.M., M.D., Assistant Professor of Bacteriology, University of Pennsylvania. Illustrated. Third Edition, Thoroughly Revised and Enlarged. Cloth, 555 pages, \$3.00 net. Philadelphia and London; W. B. Saunders Co. 1909.

Few works on hygiene have been more popular than this volume of Bergey, designed as a practical manual for students, physicians and health-officers. This is the third edition,

thoroughly revised and enlarged, and incorporating all of the more recent knowledge and facts that have to do with modern hygiene and sanitation. In addition to the usual chapters on air, ventilation, heating, water and water supplies; removal and disposal of sewage; garbage disposal; food and dieting; exercises; personal, industrial and school hygiene; there are articles on military and naval hygiene; soil; habitations; vital causes of disease; disinfections; quarantine; vital statistics.

The diagrams and illustrations are of more than usual worth, and the different chapters contain many references to literature and recent original investigations bearing on the various topics under discussion.

TOWN AND CITY. By Francis Gulick Jewett. The Gulick Hygiene Series. Book Three. Cloth, 278 pages. Ginn & Company, Boston, New York, Chicago, London.

This is another of the admirable series of hygienic primers put out under the editorship of Dr. F. G. Jewett. In the present work some of the topics discussed are as follows: The Growth of Cities; Results of Over-crowding; Expense of Alcohol to State and City; Clean Streets; Garbage, Ashes and Rubbish; Parks, Play-grounds and Public Baths; Fires and Water Supplies; Rivers, Drinking Water and Sewage; Preventable Diseases and the Japanese Army; Food Inspection; Epidemics; Discovery of Disease Microbes; Vaccination War Against Tuberculosis; Why Mosquitoes Should Go.

The volume is admirably illustrated and written in a style to particularly appeal to the young readers, for whom it is especially intended. This series of Primer will certainly do tremendous good if they can once enter the schools and be read.



A TEXT-BOOK OF PRACTICAL THERAPEUTICS, with Especial Reference to the Application of Remedial Measures to Disease and Their Employment Upon a Rational Basis. By Hobart Amory Hare, M.D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; One-time Clinical Professor of Diseases of Children in the University of Pennsylvania; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London; Member of the Committee of Revision of the United States Pharmacopoeia of 1905. Thirteenth Edition. Enlarged, Thoroughly Revised and Largely Rewritten. Illustrated with 122 Engravings and Four Colored Plates. Cloth, 958 pages, \$3.00 net. Lea & Febiger, Philadelphia and New York. 1909.

This is the thirteenth edition of Dr. Hare's admirable volume on Therapeutics, and like its predecessors is just as interesting and valuable as ever. The general arrangement of the book consists of four parts. The first deals with General Therapeutical Considerations, the second with Drugs, the third with Remedial Measures Other Than Drugs and Diet, and the fourth with the Treatment of Disease; Table of Doses of Medicine; Index of Drugs and Remedial Measures; and Index of Diseases and Remedies.

Dr. Hare is in one sense a thera-

peutical optimist, at the same time giving nearly always excellent reasons for the different drugs and methods of medication which he recommends.

This new addition has brought Dr. Hare's standard work fully up to date, and it will earn, no doubt, as good a name as have its predecessors.

ANNUAL REPORT OF THE SMITHSONIAN INSTITUTE, 1908. Washington, Government Printing Office, 1909.

This knowledge-bearing annual again makes its welcome appearance. Among some of the instructive sections are chapters on: Aviation in France, Wireless Telephony, Phototelegraphy, Development of General and Physical Chemistry during the last forty years, Development of Technological Chemistry during the last forty years, Recent Researches in the Structure of the Universe, Malaria in Greece. But we can not give any more space; suffice it to say there are over 800 pages. If you desire a copy, write to Senator Frank P. Flint or Representative James McLachlan, Washington, D. C.

## MISCELLANEOUS—THERAPEUTICAL HINTS

ASSURED THERAPEUTIC RESULTS.—Assured therapeutic results can only follow the administration of active remedies. Extemporaneously prepared preparations, in lieu of time-tried and clinically proven products, especially where dependence must be placed upon crude drugs of uncertain strength due to improper selection or deterioration from age, has resulted in dissatisfaction to the physician and disappointment to the patient, who has a just right to expect benefits as a result of the remedy prescribed.

For twenty-six years Hayden's Viburnum Compound has remained standard both as to quantity and quality of its component parts as well as to the

uniformly satisfactory results following its administration.

Hayden's Viburnum Compound is prepared with that care, both as to the selection of drugs and in the proper combining, to make it a perfect and dependable product which is impossible where a substitute formula is extemporaneously prepared from the stock and with the limited facilities of the average drug store.

If in the next case of dysmenorrhea, you will at least give Hayden's Viburnum Compound a trial, administering it a few days prior and during the menstrual period, we are confident that your patient will experience the same beneficial result as has been the case

during the many years Hayden's Viburnum Compound has been before the profession.

In amenorrhea, menorrhagia and metrorrhagia, Hayden's Viburnum Compound has proven of unquestionable value and as its reputation has been built up and maintained solely upon its merits as a reliable remedy in the treatment of diseases of women, we are confident that if you will use it in your next case, you will be as well satisfied as have been those who have for years placed their dependence upon it. Owing to the popularity of Hayden's Viburnum Compound and its large sale, it is extensively imitated by other manufacturers. To assure satisfactory beneficial results, the original H. V. C. should only be administered. We would be glad to send samples and literature upon request. New York Pharmaceutical Co., Bedford Springs, Bedford, Mass.

Few minor diseased conditions are provocative of such inconvenience as an acute nasal catarrh, and an agent that will check it and bring about a cure is worthy the widest use. Douches of Katharmon in diluted strength will accomplish this end by reducing the turbulence of the mucosa and checking the inflammatory process.

Bromalbin was evolved in the chemical laboratories of Parke, Davis & Co. The chief advantage of Bromalbin over the inorganic bromides appears to be in its adaptation to long-continued treatment. It passes through the stomach practically unchanged, consequently does not produce the gastric irritation common to the alkaline bromides. Slowly dissolving in the intestinal secretions, it is then absorbed, producing a gentle, prolonged systemic effect. Other advantages are: its more complete absorption, its comparative tastelessness, and the small likelihood that it will produce

acne, dizziness, or other symptoms of bromism. It is marketed in powder form (ounce vials) and may be given in water, coffee, chocolate, syrups, wines or any beverage not alkaline in character. It is also supplied in 5-grain capsules (bottles of 100), in which form, perhaps, it is likely to be most commonly used. There is wide need of a sedative such as Bromalbin promises to be, and fuller reports on the new agent will be awaited with interest by the profession.

Dr. Chas. H. Christal of the Hammer-smith Infirmary, London, in an article on the "Preparation of Chronic Catgut," says: "The claims of catgut as a surgical ligature were ardently supported by Lord Lister, to whom in the main, its present popularity is due. The fact that it is absorbable by the living animal tissues is another factor in its favor, for having fulfilled its duty it disappears; and so the danger of subsequent infection due to the presence of a non-absorbable ligature, which acts as a foreign body, is eliminated. But the catgut itself, even when it is rendered sterile, may in itself induce suppuration when buried in healthy tissues. Besides its property of exciting suppuration as mentioned above, during the process of absorption it may, if not sterile, liberate pathogenic microbes. As an antiseptic which can be incorporated with catgut, which can be non-injurious to the tissues, and which will not interfere with its strength and pliability, Dr. Christal recommends Thymol."

Among modern ferrous products none has seemed to be so generally acceptable and promptly assimilable as the organo-plastic form represented by Pepto-Mangan (Gude). The ferruginous element in this preparation exists as a true peptonate, in combination with organic manganese, iron's side-partner in reconstructive blood therapy. It is

palatable, readily tolerable, quickly absorbable and assimilable and entirely free from irritant or constipating effect. Pepto-Mangan (Gude) rapidly restores vigor to the circulating fluid and because of its blandness and ready tolerability is especially valuable in pediatric practice. Pepto-Mangan (Gude), being bland, non-irritant and readily tolerable, can almost always be given, with distinct advantage to appetite, digestion, nutrition and general well-being, while causative therapy is under way. Neither constipation nor digestive disturbance results from its steady use, and a general hematic gain is practically a certainty, if its use is persisted in.

During the critical period of labor pneumonia, when stimulation of the heart becomes necessary, Digalen, as one of the best of the digitalis group, can be employed with reasonable certainty of realizing the full therapeutic expectation of the drug. Dr. Eugene L. Swen, of Brooklyn, N. Y., said: "I have given Digalen to one of my patients for nine months steadily, with intervals of five days at times, and have never observed any of the cumulative effects of the usual preparations of digitalis. No gastric disturbance whatever appeared; instead, the digestive powers increased, due to improved gastric circulation, as well as more regularly established renal functions." Digalen is marketed by the Hoffman-La Roche Chemical Works, of whom descriptive literature can be had for the asking.

Dr. John Arthur Diggle, Med. Ref. Globe Accident Assur. Soc. of London, Eng., says: "I have found antikamnia tablets most useful in neuralgic cases and acute rheumatic attacks, and in sudden nervous attacks with severe pain. In case of paraplegia, in which the suffering from pain in the paralyzed limbs was agonizing, and had only yielded be-

## "The Passage of an Instrument

of any kind into the healthy urethra," says Sir Henry Thompson, "must *per se* be a source of irritation . . . Of course, the amount of irritation will depend in great part on the manner in which it is passed."



## K-Y Lubricating Jelly

reduces the *discomfort* by improving the *manner* of urethral instrumentation. Its emollient action also aids in subduing existing irritation in the prostatic invalid.

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fore, to gradually increasing doses of morphine hypodermically, their effect was, and continued to be, good. In a case of typhlitis both the analgesic and antipyretic properties were signally shown. In some cases of dysmenorrhea one or two tablets relieved the pain, and the after use of caulocorea for a while, prevented its return. The rapidity with which they acted in some cases of migraine seemed simply marvelous."

The International American Congress of Medicine and Hygiene of 1910 in commemoration of the first centenary of the May revolution of 1810, under the patronage of His Excellency, the President of the Argentine Republic, will be held May 25 in Buenos Ayres, Argentine Republic.



## CONTINENCE OF SAINT JOHN.

John is the virginal old man. All the ardent juices of man seem subtilized within him, filling his brain with visionary wraiths. One does not escape love. Love, unappeased and discontented, changes itself at the end of life into an outflow of gloomy fancies. The woman wants man; otherwise man, instead of human poetry, will have a phantom poetry. Some beings, however, resist the universal generative tendency, and then they are in that peculiar state in which men are subject to monstrous inspirations. The Apocalypse is the almost insane masterpiece of this dreadful chastity. John, while young, was gentle and shy. Having loved Jesus, he could love nothing else. There is a profound resemblance between the Song of Songs and the Apocalypse; they are both explosions of pent-up virginity. The heart, mighty volcano, bursts into eruption; there proceeds from it this dove, the Song of Songs, or this dragon, the Apocalypse. These two poems are the two poles of ecstasy—voluptuousness and horror, the two extreme limits of the soul are attained. In the first poem ecstasy exhausts love; in the second, terror; and this disquieted, the dread of the eternal precipice. Another resemblance, not less worthy of attention, there is between John and Daniel. The nearly invisible thread of affinity is carefully followed by the eye of those who see in the prophetic spirit a human and normal phenomenon, and who, far from disdaining the question of miracles, generalize it, and calmly connect it with permanent laws. Religions lose, and science gains by the process. It has not been sufficiently remarked that the seventh chapter of Daniel contains the germ of the Apocalypse. Empires are there represented as beasts. Legend has therefore associated the two poets, making the one pass through the lions' den, the other through the caldron of boiling oil. Independently

of the legend, the life of John is noble—an exemplary life, subject to marvelous expansions, passing from Golgotha to Patmos, and from the execution of the Messiah to the exile of the prophet. John, after having been present at the sufferings of Christ, ends by suffering, endured makes him a sage; from the growth of the trial results the growth of the spirit. Bishop, he writes the Gospel; proscribed, he composes the Apocalypse—a tragic work, written under the dictation of an eagle, the poet having above his head we know not what mournful flapping of wings. The whole Bible is between two dreamers, Moses and John. This poem emerges from chaos in Genesis, and passed out of view amid the thunders of the Apocalypse. John was one of the great wanderers of the tongue of fire. During the Last Supper his head was on the breast of Jesus, and he could say, "Mine ear has heard the beating of God's heart." He went about to relate it to man. He spoke a barbarous Greek, mingled with Hebrew expressions and Syrian words—a language of a wild, harsh charm. He went to Ephesus, he went to Media, he went among the Parthians. He faced the living idols, Cobaris, king, god and man, forever immovable on his pierced block of nephritic jade, which served him as throne and latrine. He evangelized Persia, which the Scriptures call Paras. When he appeared at the Council of Jerusalem he was regarded as a pillar of the church. He looked with stupefaction at Cerinthus and Ebion, who said that Jesus was but a man. When they questioned him upon the mystery, he answered, "Love one another." He died at the age of 94 years under Trajan. According to tradition, he is not dead; he is spared, and John is ever living at Patmos, as Barbarossa at Kaiserslautern. Caverns there are in which these mysterious mortals are waiting. John as an historian had his

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equals, Matthew, Luke, Mark; as a visionary he is alone. There is no dream that approaches his, such a reach it has into the infinite. His metaphors issue from eternity, perturbed; his poetry has a profound smile of madness. A light reflected from the Most High is in the eye of this man; it is the sublime in full aberration. Men do not understand it—scorn it, and laugh. "My dear Thiriot," says Voltaire, "the Apocalypse is a piece of ordure." Religion, being in want of this book have taken to worshipping the ditch. What does it matter, John is a spirit. It is in John of Patmos, above all others, that the communication between certain men of genius and the abyss is apparent. In all other poets we guess this communication; in John we see it, at moments we touch it, and seem to lay a

shuddering hand upon that sombre portal. It is the door that leads to God. In reading the poem of Patmos, some one seems to push you from behind; the dread entrance, vaguely outlined, arouses mingled terror and longing. Were this all of John, he would still be colossal.—*Victor Hugo.*

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Writing in the "Medizinische Klinik" of October 31, 1909, Dr. Michael Spitzer, assistant to Dr. Singer at the first medical ward of the Imperial Hospital "Rudolfstiftung" in Vienna, says: "Fully convinced that articular rheumatism, in the majority of cases, constitutes a pyemic process, Dr. Singer has for more than ten years used Collargolum and Unguentum Credé in the treatment of this disease. Unguentum Credé may be applied locally to the affected parts, or used percutaneously over a larger area, like mercuric ointment. Collargol is best used in form of enemata,  $7\frac{1}{2}$  up to 75 grains in 3 to 6 ounces of distilled water being given."

---

After even simple surgical operations patients are almost always menaced by the manifold complications that are superinduced by the nervous or more or less debilitated state that is inevitable. Tonic treatment is always indicated, and nothing at a surgeon's command will give more substantial satisfaction to all concerned than Gray's Glycerine Tonic Comp. Under its tonic and reconstructive influence the vital functions are restored to normal activity and the nerve balance coincidentally re-established.

---

As a douche in leucorrhea or whites, a solution of one grain of quinine hydrochloride to one ounce of warm saturated solution of boric acid is said to be excellent. The salt may also be prescribed in the form of glyco-gelatin pessaries containing two or three grains each.

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For 1,000 active troops in the armies of the great world powers, the following figures show the percentage of cases of pulmonary tuberculosis: United States, 4.72; Great Britain and colonies, 2.4; France, 5.3; Germany, 1.5; Austria, 1.0; and Russia, 2.7. The percentage in the general population is much larger.

### CALENTURE.

By W. C. COOPER, M.D.

There was a little maiden—  
Miss Carolina Hayden—

And she was vastly handsome and  
tumultuously pure,  
But she was sadly ailing  
With a psychopathic failing,  
Which a doctor from Missouri called  
a case of calenture.

The maiden had a lover,  
Who never did discover  
That his sweetheart was the victim  
of a malady obscure;  
All her vaporings and gushings,  
He attributed to rushing  
Of her feelings to the surface, and  
not to calenture.

But the doctor still insisted  
That the badly torn and twisted  
Condition of her ethics, and her moral  
temperature,  
Was owing to the pinching,  
And everlasting clinching  
Of nerve terminals—that was why she  
had the calenture.

Nothing plainer nor distincter  
Than the call to stretch a sphincter,  
Or several of them, if need be, to  
make us feel secure,  
And "I'll wager my position,"  
Said the confident physician,  
"That nothing else will ever knock  
this case of calenture."

But the lovers never tarried—  
They ran away and married,  
And by some hocus-pocus nature  
wrought a perfect cure,  
And the lay world split its brisket  
Over how the doctor missed it,  
But—did he, gentle reader, in this  
case of calenture?

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Consumption is a common disease  
among plants and flowers, being most  
frequent in house plants.



# SOUTHERN CALIFORNIA PRACTITIONER

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Editor,  
DR. WALTER LINDLEY.

Associate Editors,  
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Assistant Editors,  
DR. H. BERT. ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW  
and DR. F. M. POTTENGER.

## RABIES—WITH REPORT OF CASES FROM SKUNK BITES.\*

BY C. E. YOUNT, M.D., PRESCOTT, ARIZONA.

"There is no communicable disease more easily eradicated than rabies."—(Salmon.)

The fact that it is as prevalent today as in the time of Aristotle, together with the fact that in the registration area of the United States, rabies has increased from 43 per 100,000 of population in 1903 to 75 in 1907, is, we think, sufficient explanation for our paper.

### HISTORY.

"From the earliest dawn of history the disease has been feared and dreaded, its terrible manifestations have surrounded it with an atmosphere of awe and mystery and it is not surprising that myths, fallacies, and misconceptions in regard to it have been common and widely accepted. Nor have these errors been confined to the ignorant or those unfamiliar with the subject of disease; but on the contrary, they have been shared and propagated by men of learning, some of whom have stood high in the medical world."—(Salmon.)

Many authorities of antiquity have mentioned the disease. The first case found in history is the death of Akteon, son of Aristeus, about 13 centuries B. C. Aristotle (326 B. C.) gave posterity an account of the disease and its transmissibility among animals. He said, "Dogs are subject to rabies; it makes them furious. All the animals they bite while in this state become rabid, except man." Celsus and Coelius Aurilanus writing about 350 years later gave a good description of the disease in man, and gave directions for its prevention, Celsus advising suction and the actual cautery for the treatment of the wound. The first accurate clinical picture appears in 1771 from the pen of Van Sweiten, who also mentioned the paralytic form in man. His observations were more fully described and confirmed in 1822, by Berndt, of Griefswald.

"The virulence of the saliva of dogs was first clearly demonstrated by Gruner, and the Comte de Salm, in

\*Read before the Eighteenth Annual Session of the Arizona Medical Association, May 20th, 1909.

1813. This was confirmed by Berndt, who held that the saliva of all animals affected with rabies contained the virus. By many it was believed that the herbivora were an exception to this, an opinion quite current until the work of Rey, in 1842, proved the correctness of Berndt's views. Our present ideas are largely due to the labors of Pasteur, begun in 1881."—(M. P. Ravenel.)

#### ETIOLOGY.

"We know that rabies can be communicated only by an animal affected with it." (Rimbaud.)

Hadely (Prov. Med. Jour.) gives the following list of susceptible animals:—dogs, cats, skunks, pigs, horses, cattle, sheep, deer, rabbits, guinea pigs, mice, hens, birds and many species: to which we add man and monkeys.

As to distribution, it is general over the world with the possible exception of Australia, due to rigid quarantine and muzzling measures. These same measures have made it rare in north Germany, while in England the muzzling order has been followed by a complete disappearance of the disease. In the United States the disease is more frequent than is usually supposed, no state being free from it; the census of 1900 gave 230 deaths in 73 cities heard from; Chicago leading with 68 deaths.

The influence of season upon rabies has been determined by a careful tabulation of cases by Salmon (1900) and completely refutes the superstitions which have existed since the days of Homer, whose reference to the "Dog Star or Orion's Dog" exerting a malignant influence upon the health of mankind, has been handed down through the ages and causes multitudes to beware the dog-days. According to the table above referred to of 14,066 cases of rabies in dogs, it is found that June stands highest with 1,467 cases, while the "Dog-days" or

August had 1,294, with December 1,137 and February 1,045.

In a general way it may be provisionally admitted that more rabies occurs in dogs in the months from April to September than from October to April, but the disease is seen in every month of the year, and June stands highest (1,467) and November lowest (933) in number of cases. The difference is not sufficient to warrant anyone in deciding that a suspected animal is not affected with rabies because the symptoms are observed in one of the winter months.—(Salmon.)

Concerning the propagation of rabies, Rimbaud of the New York Pasteur Institute, gives this order:—dogs, cats, horses, cattle, pigs, rats, wolves, foxes, and skunks. It is worthy of note, that of 16,172 persons bitten by supposedly rabid animals reported by the Pasteur Institute, Paris, not one case was due to the bite of a skunk, while here in Arizona we find the skunk, like the wolf in Russia, heads the list.

Rabies is usually transmitted through a bite, the danger of which depends upon the depth, the dimensions, the location and covering. It may take place through an old wound or on a freshly shaven face, and cases are recorded where licking the hands or face, where no abrasion was known to exist, by a rabid animal has resulted in the disease. Bites upon the face are most dangerous, because the virus quickly reaches the medulla, through the cranial nerves. The finger tips are next in importance. Laboratory and post mortem work upon animals dead of rabies has been a source of inoculation. Not every person bitten by a rabid animal develops the disease. Here are some of the figures: Leblanc gives 16.6%, Tardeau and Bonley found 46.6%, Horsley 15%, and Roux 14%. In persons bitten by wolves the mortality is not less than 40%, while Babes estimates the mor-

tality from 60 to 80% in persons thus bitten.

The infective organs and secretions of rabid animals still offer room for experimentation. These facts, however, have been demonstrated: The saliva and salivary glands are most virulent, and this virulency is proven by Nochard and Roux to exist from 24 to 48 hours before the animal manifests any symptoms of rabies. The injured nerve trunk in the line of communication with the central nervous system, the spinal cord, medulla and brain contain the virus in great quantity, or as Pasteur once put it, "The entire nervous system from center to periphery, is capable of cultivating the virus." Strange as it may seem, "The blood of a patient suffering from rabies fails to infect rabbits when inoculated subdurally."—(D. Semple.) The lachrymal glands, pancreas and suprarenal capsules may contain the virus. It is also excreted in the milk at times.—(M. P. Ravenel.)

#### PATHOLOGICAL ANATOMY.

The gross lesions of rabies show nothing pathognomonic.

There may be congestion and emphysema of the lungs due to convulsive seizures. There is usually congestion and great dryness of the fauces, larynx, oesophagus and stomach, while the kidneys may be the seat of parenchymatous nephritis. The urine sometimes contains albumin and sugar, the blood shows a marked polynuclear leucocytosis. The histologic and pathologic study of the central nervous system where the most constant and important lesions are found would furnish in themselves a paper of great interest. Today we will refer only to the careful and painstaking efforts of Pasteur begun in 1880 and continued for five years without finding the germ, but instead of a more priceless boon to mankind, the treatment which bears his name. Then the histologic studies of

Babes, resulting in his diagnostic "Tubercle", the nervous or vascular tubercle of Babes. In 1900 Van Gehuchten and Nelis described the lesions which they considered confirmatory, followed in 1903 by the announcement of the Italian, Negri, that small bodies seen by him in the large nerve cells of the central nervous system are absolutely pathognomonic of hydrophobia.

This brings us to a consideration of the role of the "Negri bodies." We find scientists divided into two schools; first, those who believe the "Germ" still undiscovered, and the bodies observed by Negri degeneration products of the nerve cells, and second, those who agree with Negri in believing the "Bodies" true protozoa, the specific cause of rabies.

No matter how logical the arguments against Negri's theory, these two facts remain: first, that "up to the present time (Sept., '08) there have been several thousand cases reported in all and there has been no dissenting voice as to the value of the typical 'Negri bodies' in diagnosis;" second, "The mass of workers agree in finding that in all work controlled by careful animal inoculation, typical rabies always develops in animals inoculated with material showing definitely structured Negri bodies". (Anna K. Williams.)

#### THE RABIC VIRUS.

I think it is of practical interest to know the amount of resistance the rabic virus offers to the various physical agents, for in our great distance from a Pasteur Institute it suggests some of the means of "First Aid". Heat destroys it, an exposure to a temperature of 118° F. for five minutes rendering it inert. A rabic medulla loses its virulence after having been heated for one hour at 122° or for two hours at 113° F.

Direct sunlight destroys the virus in about 48 hours. In water the virus retains its power for 20 to 40 days, or



longer. Cold has little or no action; an exposure to 40° F. only diminishes the virulence. Decomposition does not destroy it. Galtier produced rabies from the nerve center of a dog buried 44 days. The X-ray does not seem to have any effect on the virus. In neutral glycerine the virulence is unaltered after 3 or 4 weeks and may still be present after a lapse of 10 or 12 weeks. (See report of case II.)

Investigators differ greatly as to the effect of various antiseptics. The best appear to be corrosive sublimate, 1 to 1000, citric acid in 6% solution, and saturated watery solution of iodine. The virulence of fixed virus is destroyed in eight minutes by one part of a 5% solution of formalin in three parts of virus. Bile rapidly destroys the activity of the virus. When an emulsion of the bulb from a rabid animal is mixed with an equal volume of bile from either a healthy or rabid rabbit, and allowed to stand a few minutes, it may then be inoculated without danger of causing rabies. (M. P. Ravenel). A 2.5% solution of permanganate of potash in 50% alcohol destroys the virus of an emulsion in 24 hours. An emulsion in 25% alcohol is still virulent after 3 days, but not after 5 days. An emulsion acidified with 1 or 2 drops of acetic acid or made decidedly alkaline with a small crystal of sodium carbonate is rendered inactive. A 5% solution of carbolic acid destroys the virus in one hour. Silver nitrate has but little effect upon the virus. Chlorine, bromine and iodine water will destroy the virus in a few minutes. In cadavers, the virus retains its properties for a long time (20 to 40 days).

#### PERIOD OF INCUBATION.

Probably no other disease has such a variable period of incubation. Well authenticated cases in man give from twelve days to eighteen months as a maximum and minimum limit. The

average period in man is 40 days; it rarely develops after three months. This accordion-like flexibility in the period of incubation while not at present fully understood, may in part be explained by some of the following facts: The location of the bite; exposed portions of the body having rich nerve supply, as the face (70 to 90%) and hands (40 to 60%) are points of great danger and the period of incubation is usually short. The same is true of extensive bites near the large nerve trunks of the extremities. If the bite is on a portion of the body covered by clothing and the teeth have been "Sponged off", so to speak, before inflicting the wound, infection is less apt to occur and the incubation period is longer. Prompt and proper cauterization of the wound may destroy the virus or at least lengthen the period of incubation. All conditions which have a tendency to depress the nervous system have a tendency to shorten the period of incubation. Children are more susceptible than adults and the period of incubation is usually shorter in them. The species of animal inflicting the bite merits consideration, in point of fatalities; the wolf leads, with the skunk second, according to Osler. The state of virulence of the virus and the amount injected are important factors in the infection, the virus of the dumb rabid animal being infective in the highest degree, much more so than the thick, scant saliva of the furiously rabid animal.

#### SYMPTOMATOLOGY.

In presenting the symptomatology of rabies I shall ask enough of your time to consider the disease in both dog and man. The description of the former I take from Harris, the latter from Osler.

In the dog street rabies develops after an incubation period of from two to five weeks. The initial stage is characterized by moroseness, unfriend-

liness, irritability, and loss of appetite, soon followed by unrest, scratching and licking the point of inoculation and abnormal appetite. The animal eats wood, straw and anything which may be in his way. The eyes are congested, the pupils dilated. After two or three days the real outbreak occurs. The actions become more abnormal. The animal snaps at everything; the bark is a hoarse howl; if chained, he constantly struggles to be free; if free he leaves his home and wanders without course or purpose. The desire to bite any and everything and the extreme anger at restraint are characteristic. Frequent convulsions mark the last stage. When confined for observation, great sensitiveness to light and sound are noted. Contrary to general belief, the dog can drink, though with difficulty. The dumb or paralytic form occurs in about one-fifth of the cases. The symptoms of central nervous irritation are wanting. The dog vainly tries to bite, the jaw hangs open; the tongue falls out; eating is impossible; food falls from the mouth. The final paralysis begins in the hind extremities and progresses forward.

Three stages of the disease are recognized in man:

(I.) Premonitory stage, in which there may be irritation from the bite, pain or numbness. The patient is depressed and melancholy, and complains of headache and loss of appetite. He is very irritable and sleepless, and has a constant sense of impending danger. There is often greatly increased sensibility. A bright light or a loud voice is distressing. The larynx may be injected and the first difficulty in swallowing experienced. The voice also becomes husky. There is a slight rise in the temperature and the pulse.

(II.) Stage of excitement. This is characterized by great excitability and restlessness, and an extreme degree of hyperaesthesia. "Any afferent stimu-

lant, any sound or a draught of air, or the mere association of a verbal suggestion will cause a violent reflex spasm. In man this symptom causes the most distressing feature of the malady. The clonic spasms which affect particularly the muscles of the larynx and mouth, are exceedingly painful and are accompanied by an intense sense of dyspnoea, even when the glottis is widely opened or tracheotomy has been performed." (Horsely). Any attempt to take water is followed by an intensely painful spasm of the muscles of the larynx and the muscles of the hyoid bone. It is this which make the patient dread the very sight of water and gives the name HYDROPHOBIA to the disease. These spasmodic attacks may be associated with maniacal symptoms. In the intervals between, the patient is quiet and the mind unclouded. The temperature in this stage is usually high and may reach  $103^{\circ}$ . In some instances the disease is afebrile. The patient rarely attempts to injure himself or his attendants, and in the intense spasm may be particularly anxious to avoid hurting anyone; but the attendants must avoid inoculation from the patient's saliva, which should be collected and burned. There are, however, occasional fits of furious mania, and the patient may, in the contraction of the muscles of the larynx and pharynx, give utterance to odd sounds. This stage lasts from a day and a half to three days and gradually passes into the—

(III.) Paralytic stage. In rodents the preliminary and furious stage are absent, as a rule, and the paralytic stage may be marked from the outset, the so-called dumb rabies. This stage rarely lasts longer than from six to eighteen hours. The patient then becomes quiet. The spasms no longer occur, unconsciousness gradually supervenes, the heart's action becomes

more and more enfeebled, and death occurs by syncope

#### DIAGNOSIS.

The clinical diagnosis of rabies is easily made: One symptom is pathognomonic, that is, the pharyngeal and respiratory spasms caused by the slightest draught of air. I usually bring out the symptom by gently blowing on a patient's face while his attention is attracted by a third person or by conversation. Even if the patient is talking and in the midst of a sentence, the characteristic spasm occurs and forces him to stop. The facial expression is quite characteristic and never to be forgotten. It must, however, be differentiated from hysteria, tetanus, lyssophobia, delirium tremens and poisoning by belladonna and stramonium. (Rambaud).

As I have previously stated, the laboratory diagnosis of rabies depends upon finding the Negri bodies and for a clear presentation of the method I will again quote from the excellent article of Dr. Anna W. Williams, assistant director of the New York City Research Laboratory: "The *Localization* of the Negri bodies is another important point in making diagnosis. We have found well-developed bodies distinctly localized in different parts of the brain in several instances. In one horse there were small widely-scattered areas of well-structured forms throughout the cerebellum, while tiny indefinite forms were scattered through the rest of the brain examined. In two human brains well-developed forms were found in the corpus striatum and not in the rest of the brain examined. In several dogs the localization has also been marked.

The technique of the best method to follow in the examination of suspected cases is as follows:

(I.) The whole brain, and when wished, the Gasserian ganglion, the

spinal cord and its ganglia are removed under sterile precautions.

(II.) The salivary glands are removed under sterile precautions.

(III.) Small sections are cut from the various parts desired, especially from Ammon's horn, cerebellum, and motor area of cortex, and are fixed in Zenker and imbedded in paraffin, according to the method given in previous article.

(IV.) The smears are made by pressing between a glass slide and a cover glass a small, thin section of the gray matter from (a) the cerebral cortex, (b) Ammon's horn, or (c) the cerebellum; the material is spread along the slide by moving the cover glass down with the finger.

When partly or completely air-dried the smears are fixed for about ten minutes in neutralized\* methyl alcohol, to which one-tenth per cent. of picric acid has been added. The excess of the fixative is removed by blotting with fine filter paper. The fixed smears are stained in the following solution:

Saturated alcoholic solution of fuchsin—0.3 part.

Saturated alcoholic solution of methylene blue—2.0 parts.

Distilled water—30.0 parts.

This solution, which is a modification of the one proposed by Van Gieson for staining the Negri bodies in smears, changes quickly at room temperature, but kept in the ice-box it gives good results for an indefinite time. The stain is poured on the smear and held over the flame until it steams. The smear is then washed in tap water and blotted with fine filter paper.

With this stain the Negri bodies appear a magenta, the nerve cells blue, and the red cells yellow or salmon color.

\*The wood alcohol is neutralized by adding sodium carbonate ( $\text{Na}_2\text{CO}_3$ ), about 25 grms to 500 C. C. of alcohol.



(V.) If nothing is found in smear from the parts mentioned, smears are made from various other parts of the brain. If still nothing is found, an emulsion is made of good-sized pieces from the different parts of the brain and intracerebral inoculations made into three guinea pigs; about one-fourth c. c. of the emulsion is inoculated. An emulsion is also made of the different parts of the brain in glycerine for later inoculations, if for any reason the first should fail. Sterilized, neutral glycerine is used. These emulsions remain active in the ice-box for over three months.

If one has a freezing ice-box, the whole brain may be frozen where it will remain in a perfect state of preservation and fully virulent for over three months.

Contaminated, doubtful material is made into a weaker fresh emulsion in order to lessen the number of bacteria. The glycerinated emulsion made from part of the same material is inoculated after two weeks, unless positive results have been gotten from the weak solution.

(VI.) One of the three guinea pigs is killed on the eighth day after inoculation, when, if the material inoculated was rabies, the animal may show definite Negri bodies in the brain at the end of that time. Of course negative results mean nothing. The other animals are kept under observation, if they do not develop rabies, for from four to six months.

#### TREATMENT.

We will consider the treatment of rabies as naturally dividing itself into preventative, and failing here, palliative. Under the preventive treatment we will consider the immediate or cauterization, and the mediate or inoculation methods. We will reverse the above order, however, and consider first the palliative treatment, which since "The human animal never recovers from hydrophobia" consists in making

him as easy as possible, until Death shall come to his relief. Osler says, "To allay the spasm chloroform may be administered and morphia given hypodermically. It is best to use these powerful remedies from the start and not to temporize with chloral and bromide of potassium, and less potent drugs. Rambaud recommends hyoscine hydrobromide as best to control the spasms, and I would suggest a combination of the two used hypodermically as soon as a diagnosis is made, both to control the spasms and relieve the mental suffering, which is indescribable, and requires that the higher centers be blunted.

If you will look through the literature on hydrophobia you will note marked differences of opinion concerning the immediate treatment of the "bite" from rabid animals. From the time of Celsus to the present, thermal cauterization has been considered good and rational treatment. Chemical cauterization with either alkalis or acids rests on a rational basis as proven by experiments previously cited, yet there are many physicians and surgeons who scoff at the effectiveness of these methods. Let us take our stand on this treatment after reviewing some experimental work done on guinea pigs. "Certain investigations have been made to determine the actual effect of cauteries applied twenty-four hours after the possible infection. Without going into the details of these experiments which were made with guinea pigs and included the use of pure nitric acid and thermal cauteries, nitrate of silver and aseptic swabbings, we may briefly state the results as follows:

"1. Ninety-one per cent. of guinea pigs which have been inoculated with rabic virus, can be prevented from developing rabies if cauterization is effected with pure nitric acid twenty-four hours after the infection.

"2. Seventy per cent. of guinea pigs inoculated in the same manner may be prevented from developing the disease if

an actual cautery is applied twenty-four hours after infection.

"3. Fifty-five per cent. of guinea pigs kept from developing rabies if cauterization is effected with silver nitrate twenty-four hours after infection.

"4. Thirty-one per cent. of the pigs failed to produce the disease when the wound was thoroughly opened and swabbed out with sterile cotton twenty-four hours after infection."—Hadley.

Bleeding from the rabic wound should be encouraged, as the blood may carry off much of the virus. The newer colloidal silver salts are to be preferred, as their solutions do not coagulate albumin and thus penetrate the tissues to a greater depth.

"Treat the wound antiseptically and keep it open for at least five days."—Osler.

It is proven beyond question that while immediate cauterization of the wound may not always prevent the development of rabies, it does *lengthen the period of incubation*, a point worth remembering by those of us who practice at such a great distance from a Pasteur institute.

#### PASTEUR TREATMENT.

Pliny, the elder, sometimes styled, "A worthy precursor of village quacks," recommended as a cure the use of the liver of rabid dogs, this in the first century, unsuccessfully. Do we not see history repeating itself after eighteen hundred years when Louis Pasteur on March 4th, 1885, made his first human inoculation (not with the liver of rabid dogs) but with the spinal cord of a rabbit dead of rabies? Thus in the words of Weir Mitchell Our Creator again "Saw with a God's pure joy, His ripening plan, His highest mercy brought by man to man."

#### TECHNIQUE OF PASTEUR METHOD.

Let us now examine somewhat more in detail the technique employed in the immunization against the virus of rabies. Generally speaking, we can say

that immunity in man may be produced by injecting subcutaneously or intravenously gradually increasing strengths of rabies virus, just as a man may be protected against relatively large amounts of arsenic, strychnine or alcohol as a result of taking them, at first in small but in gradually increasing amounts. The first aim in carrying out this method is to obtain the spinal cords of rabbits which have died of rabies (as we know, the central nervous system of these animals is most highly infective). To obtain this end, a different group of rabbits is inoculated each day with the cord of the rabbit which has most recently succumbed to the disease, thus insuring the death of some rabbit on every day of the week. As soon as a rabbit has died, he is at once washed and the skin removed from the skull and the back. Using all aseptic precautions, the brain and cord are removed and the latter, either as a whole or in sections, is hung by a silk thread in one or more cotton-plugged, sterile flasks containing at the bottom a few sticks of caustic soda to accomplish the drying of the cords. The cords are then set away in the dark to await their proper use, which may be at any time from the first to the fourteenth day of drying. The fresh cords are highly virulent, while a twelve or fourteen days' drying produces such an attenuation in the virulence that the nerve substance is no longer capable of producing the disease either in dogs or in rabbits.

In the first inoculation of a supposedly infected person the fourteen-day-old cord is, in most cases, employed. The cord is removed from its flask and with sterile scissors a piece about half a centimeter long is snipped off and placed in a heavy and previously sterilized wine glass. There with a sterile glass rod the portion of the cord is ground into a pulp; the proper amount of sterile salt solution is then added and the whole beaten again into an emulsion of the finest possible grade.

This emulsion is now ready for inoculation.

Three cubic centimeters are drawn into a syringe, the needle sterilized with alcohol and the amount injected subcutaneously into the side of the patient. In adults the injection is repeated directly in the opposite side. In children seldom more than one-half the amount used for adults is employed. In ordinary cases one inoculation is given each day; in severe cases two inoculations are given, and oftentimes one of them intravenously. The inoculations may extend over a period of time varying from eighteen to twenty-three days and depending upon the severity of the wounds in the person bitten. (Hadley, *Providence Medical Journal*.)

The classic Pasteur treatment, as modified by the New York Board of Health, is as follows:

- 1st day—6 c.c. of emulsion of cords dried 14 and 13 days.  
2nd day—6 c.c. of emulsion of cords dried 12 and 11 days.  
3rd day—6 c.c. of emulsion of cords dried 10 and 9 days.  
4th day—6 c.c. of emulsion of cords dried 8 and 7 days.

The above is practically the injection of dead virus, as drying for seven days or more kills practically all the virus.

- 5th day—2 c.c. of emulsions of cords dried 6 days.  
6th day—2 c.c. of emulsions of cords dried 5 days.  
7th day—2 c.c. of emulsions of cords dried 4 days.  
8th day—2 c.c. of emulsions of cords dried 3 days.  
9th day—2 c.c. of emulsions of cords dried 5 days.  
10th day—2 c.c. of emulsions of cords dried 4 days.  
11th day—2 c.c. of emulsions of cords dried 3 days.  
12th day—2 c.c. of emulsions of cords dried 5 days.  
13th day—2 c.c. of emulsions of cords dried 4 days.  
14th day—2 c.c. of emulsions of cords dried 3 days.

(C. J. Bartlett, M.D., *Yale Med. Journal*, April, 1908.)

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A probable explanation of the Pasteur theory is as follows: "The daily doses are just sufficient to bring about a reaction capable of stimulating the produc-

tion of antibodies, and that the immunity thus induced increases daily from the time treatment is commenced. On this assumption we would get an accumulation of antibodies and not a cumulative negative phase. The reverse of this would mean failure, a result which in practice we know to be quite the exception." (Lieut.-Col. D. Semple, *The Lancet*, June, 1908.)

The following statistical chart is by Dr. George G. Rambaud of the New York Pasteur Institute.

Results of treatments New York Pasteur Institute:

Year.	Persons treated.	Mortality, Died.	per cent.
1890 .....	109	0	0
1891 .....	100	2	2
1892 .....	104	0	0
1893 .....	85	0	0
1894 .....	89	1	1.12
1895 .....	167	2	1.19
1896 .....	263	0	0
1897 .....	133	1	0.74
1898 .....	125	1	0.80
1899 .....	159	2	1.25
1900-1901 .....	241	1	0.41
Total .....	1608	10	Av. 0.67

We note the reduction in mortality from say 15% to 50% in persons bitten, to 1/2 of 1% and less, in persons treated by the Pasteur method. Further, on the authority of Keirle of the Baltimore Pasteur Institute, we are told that the injection of the rabic emulsion does no harm, but almost without exception, the general health improves. We feel then, that, given a case wherein a person has been bitten by a dog or other animal supposed to be affected with rabies, the wound should be thoroughly cauterized and treated antiseptically like any other wound. The animal if captured alive should be watched for several days (8-15) in order to ascertain whether it is rabid or not. If it develops symptoms of rabies, kill and examine the brain. Dissect out the medulla under antiseptic precautions, place it in a mixture of equal parts of neutral glycerine and water, previously sterilized by boiling, and send at once to the nearest pathological laboratory. In Arizona owing to our great distance



from such laboratory, we advise sending the specimen with the patient, so that no time may be lost in securing Pasteur treatment, should the animal prove to have been rabid. The Pasteur treatment shows a mortality of 1-25th to 1-200th that of any other form of treatment, and the physician is in duty bound to urge it promptly and without quibbling. There is nothing else "just as good."

We have come to look upon a disease when caused by a specific organism as amenable to treatment by anti-toxin. In rabies the consensus of opinion points to the virus as being a germ and not a toxin; we are therefore more likely to be right in assuming that the serum of an immune animal is antimicrobial rather than antitoxic. Should this assumption turn out to be correct we are not likely to derive more than a limited benefit from any antirabic serum, no matter how highly the animal supplying it has been immunized. On the other hand, as pointed out by Babes and Tizzoni, its uses may lie in the direction of enabling us to grapple more successfully with the treatment of severely bitten and late cases when given as an adjunct to the ordinary method of treatment. An active immunity such as is acquired by a patient who undergoes the ordinary method of antirabic treatment takes some time to become established, but a passive immunity such as is conferred by using the serum of an animal highly immunized can be acquired very quickly. In the former case the duration of immunity is long compared with the latter, a passive immunity being easily acquired and soon got rid of again. It is thus possible to give badly bitten and late cases the benefits of a passive immunity, pending the acquirement of a more durable active immunity resulting from the inoculation of rabies virus." (Lieut. Col. D. Semple, *Lancet*, June, 1908.)

We wrote to Dr. D. W. Poor of the Research Laboratory of the Health De-

partment of the City of New York concerning the status of antirabic serum there. His reply in part is as follows: "We have had no experience with the antirabic serum in the treatment applied to humans, although we have experimented some with it on animals. The only place in which it has been extensively applied to man, so far as I know, is at the Paris Pasteur Institute. Their statistics have not as yet been published, I believe.

"I am unable to say whether the results are sufficiently good to warrant its use in man, although Marie speaks very highly of it when combined with the virus, and used as a prophylactic vaccine in dogs before they are infected."

The treatment by the Pasteur Method outside of a Pasteur Institute deserves mention. This is successfully carried on in New York State and is being tried in other states. We had hoped to be able to report the feasibility of such a method for Arizona, saving our victims both time and money in the treatment, but after a careful review of all the factors in the treatment we are of the opinion that in the present form it is not to be relied upon at this great distance from the nearest base of supply.

Let us now consider rabies in relation to Arizona. Since the classic paper of John G. Janeway, assistant surgeon, U.S.A., published in the *New York Medical Record* of March, 1875, in which he reported ten fatal cases of rabies from skunk bite, on the then Kansas frontier (Fort Hayes), the skunk has been a well recognized cause of distribution of rabies, and after you have studied the table herewith appended, showing the number of cases of skunk bite and of rabies collected in Arizona, occurring between May, 1907, and May, 1909, you will have to admit that for Arizona, at least, the skunk is the most prolific source of infection; in fact, almost the only cause of rabies, quite re-

versing the order of frequency given by the several authorities previously cited in this article, for other parts of the United States.

That rabies in the skunk seems peculiarly endemic in Arizona (at least during the two years mentioned) may be surmised by a comparison of what data we could collect from California, our neighbor on the West, and New Mexico, our eastern neighbor. Dr. L. M. Powers, Health Officer of Los Angeles, informs me that "There is no Pasteur Institute in this city and I do not know of one this side of Chicago. From all the sources of information I have not been able to learn of any case of human rabies ever having occurred in this city and do not think any person has ever been sent from here to any institution for the treatment of rabies. Some eight years ago there were several cases in dogs."

From the records of the Chicago Pasteur Institute for the past eighteen years, New Mexico has sent them only 4 cases for treatment as against 33 sent from Arizona. The Pasteur Institute at Austin, Texas, from August, 1904, to August, 1908, received 5 cases from New Mexico and 4 from Arizona.

Report of cases of rabies following skunk bite.

Case I. R. M., female, age seven years, living near Prescott, was bitten during the night, May 19th, 1907, while sleeping in a tent by a skunk, upon hand and face. Wounds were cauterized the next day and arrangements were made to send the patient to the Chicago Pasteur Institute, receiving treatment there about the seventh day after the bite. After receiving the course of treatment at Chicago, she returned to Prescott. She was told to keep quiet and out of the sun; this

CHART II.

Reporter	Residence	Cases bitten by skunks in Arizona from May '07 to May '09	Cases bitten by skunks developing rabies May '07-'09.	Treatment	Result	
					Died	Cured
B. G. Fox	Health Officer Gila County	1	0	1 Chicago, Pasteur Institute	.....	1
A. P. John	Health Officer Yuma County	0	0	.....	.....	.....
Roundsville	Health Officer Coconino County	1	0	1 Chicago, Pasteur Institute	.....	1
Milligan	Coconino County	2	0	2 Chicago, Pasteur Institute	.....	2
Kingsley	Nogales	1	0	1 Austin, Texas, Pasteur Inst.	.....	1
Witmore	Tucson	0 in 17 yrs.	0	0	.....	.....
Lacey	Solomonville	0 in 25 yrs.	0	0	.....	.....
Drane	Roosevelt	1	0	1 Permanganate injection	.....	1
Palmer	.....	.....	.....	.....	.....	.....
Whiteside	Kingman	0	0	0	.....	.....
Godfrey	Sup't Public Health	0	0	0	.....	.....
.....	Phoenix	0	0	0	.....	.....
Brockway	Florence	0 in 15 yrs.	0	0	.....	.....
Clymer	Yuma	0 in 6 yrs.	0	0	.....	.....
Fale	Clifton	0	0	0	.....	.....
Brown	Kelvin	0 in 4 yrs.	0	0	.....	.....
Minetta	Jerome	0	0	0	.....	.....
Maisch	Globe	4	1	3 to Pasteur Institute	.....	3
Powell	Wilcox	2	2	1 Not Treated	1 Died	.....
Yount	Yavapai	6	2	2 No Pasteur treatment	2 Died	.....
.....	.....	.....	.....	1 No Pasteur treatment	1 Died	.....
.....	.....	.....	.....	5 Pasteur treatment	.....	.....
Total 18 cases bitten by skunks.		Total 5 cases bitten developing rabies	18	5 Died*	13 Cured	

\*7-year-old child bitten on hand and face, getting to Chicago Pasteur Institute about seventh day after bite.

she failed to do. On June 28th, or 41 days after the bite, she developed symptoms of rabies, death occurring on June 30th. No autopsy was held.

Case II. J. W. S., trapper by occupation, age 60 years, living about 65 miles from Prescott, was bitten above the left eye while asleep in the open, August 28th, 1908, by a young skunk of one of the large varieties. The skunk was killed by patient by choking, as he tore it from its furious grip on his flesh. The next day patient came to Prescott, where his wound was cauterized. The skunk was not examined bacteriologically. For some unknown reason patient returned to his traps, though it was his purpose to go at once to the Chicago Pasteur Institute. Forty-one days after the bite the first symptoms of rabies were noted (difficulty in swallowing and pain and redness in the wound) when he set out again for Prescott and medical attention. His case presented the classic symptoms of furious rabies, suffering indescribable agonies until relieved by powerful narcotics, and on the evening of the forty-fourth day by death. The medulla was removed and placed in a mixture of equal parts of neutral glycerine and water and sent to the Public Health Laboratory at Washington, D. C., for examination. The report of the director of the laboratory, Major J. M. Rosenau, is as follows:

"I have to say that the bulb of a human case of rabies arrived here safely but was so much disintegrated that nothing definite could be made out on microscopic examination.

"On October 21, two rabbits and two guinea pigs were inoculated subdurally with this material. One of the guinea-pigs died November 8 and the other November 11 with characteristic symptoms of rabies. Negri bodies were found but they were very small. One rabbit died November 14 and the other November 20, with symptoms of rabies.

Negri bodies were found in both rabbits.

"I am sending two slides from the rabbit that died last as the bodies are larger and more numerous than in the case of the other animals."

We present the following conclusions:

I. We do not wish to overestimate the importance of the skunk as a source of rabies by the tabulation of cases above presented, but inasmuch as only one other case of infection was reported during the time our data were being collected there is but one rational conclusion (if we are permitted a conclusion from such a small number of cases and covering only two years)—namely, that the skunk is the most prolific endemic source of the propagation of rabies in Arizona. (There was one case of rabid coyote bite during this period and one of a rabid dog, since this period. The dog was bitten by a skunk.)

II. We believe that epidemic rabies would have a greater number of victims and would spread more rapidly here than elsewhere if distributed by the most common carriers, the dog and cat.

III. In the absence of experimental proof, we believe that there is no such thing as a "hydrophobia skunk" per se, that all skunks are, like a few other animals, very susceptible to rabies; that no particular species is more susceptible than another.

IV. When a skunk, an animal nocturnal in habits, generally timid, attacks man or any other animal, and inflicts a bite, if the skunk is not killed and its bulb examined bacteriologically, it were better to accept this sudden change of disposition on the part of the skunk as *a priori* evidence of rabies and seek Pasteur treatment at once.

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It is said that alcohol saturated with camphor will dissolve eight times as much iodoform as alcohol alone.



## HYDROPHOBIA—REPORT OF A LOS ANGELES CASE.\*

BY JOHN R. COLBURN, M.D., LOS ANGELES, CAL.

Between the twelfth and seventeenth days of December, 1909, as nearly as we can fix the date, Joseph S., aged ten, all his life a nervous, high-strung, excitable lad, was bitten by a stray dog on the calf of the bare leg, and died from rabies February 21, 1910, eight weeks after the injury.

When I say he was a nervous, high-strung, excitable youth, the mental picture which I wish to convey is not that of a boy of irritable temper, given to fits of anger, but that of a youth who spoke rapidly, acted quickly, always the first to be up and away when any kind of sport was suggested; physically well developed, mentally unusually bright; although only ten years of age, he was well advanced in the fifth grade of the public school; that intense type of individual in whom we look for nervous manifestations from slight causes.

I mention these characteristics in order to show how easily we were misled in interpreting the early symptoms of his malady.

I was visiting Mrs. S., who was ill, every day between December 12 and 17, and the nurse who was taking care of Mrs. S. dressed the boy's wound, without, however, any effort at disinfection or cauterization; thought so little of it that no mention was made to me of the fact that the boy had been bitten. It was, however, mentioned to his mother, but the incident was entirely forgotten until within two hours of the boy's death, when his mother recalled very indistinctly the fact that the nurse had mentioned the matter during her illness.

From the date of the injury until February 18, nothing unusual was observed, except that the boy escaped the measles, although constantly exposed, (the six other children in the family having the disease during this time),

and that the children's maid thought she had noticed that the boy had been somewhat more excitable during the week or ten days preceding the alarming symptoms.

On the date last mentioned, February 18, when I arrived home for dinner, about 7 p.m., I found the mother and boy waiting to see me. The lad looked anxious and distressed, was pacing up and down the room scratching himself vigorously with both hands in an effort to relieve an intolerable itching, which was confined to the thighs and buttocks. A careful inspection failed to reveal any eruption. Temperature and pulse normal. The mother reported his having eaten very heartily the night before, and had come down to breakfast looking rather pale and complained of not feeling well, but ate his breakfast and went to school as usual; returned home about 3 p.m. and played with his companions until about 5 p.m., when he came into the house complaining of the itching as mentioned.

I believe from the history that his pruritis was due to urticaria, the result of an attack of acute indigestion, and instructed his mother to give him an enema and put him in a soda bath and rub him with carbolized oil, and asked her to report the next morning.

Saturday, February 19, about 8 a.m., the mother phoned me saying she had followed my instructions of the night before and that the intense itching had been entirely relieved. He had had, however, rather a restless night, but seemed quite himself and thought it hardly necessary for me to come by, that she would phone the office at 4 p.m. and report. This she did, saying that the boy had remained in bed all day, was quiet, seemed very much bet-

\*Read before the Los Angeles County Medical Association, March 4, 1910.

ter and that it would not be necessary for me to call.

Sunday, February 20, about 8 a.m., she reported that the boy had had another restless night, and asked me to call, which I did about 8:30. I found the boy seemingly in his usual health; no complaint of pain; no temperature; pulse not accelerated, but to my surprise was intermittent; an irregular intermission, if I may be allowed to use the term. That is to say, there would be 1, 2, 3, 4 regular and then a skip; 1, 2, 3, 4 to 10 and a skip; 15 or 20 and a skip.

I was at a loss to account for it. He had been restless during the night, and about 2 a.m. the mother attempted to give him some castor oil, but, as she said, he gagged so badly when he undertook to swallow that she did not succeed, and several times during the early morning hours he had called for water, but every time the water was offered him the gagging, as she expressed it, would begin. He showed no such difficulty in swallowing some crackers, which he had eaten just before my arrival. I asked the mother to bring me a glass of water that I might observe the effect. As soon as he raised the glass to his lips there was a slight convulsive movement, seemingly of the muscles of deglutition. It really seemed more like a gasp than a spasm.

You have all seen many times an exact counterpart of the movement in the barnyard fowls' effort to swallow a bolus just a bit too large to pass down its gullet comfortably. Restlessness, irregularity of the pulse, and this gasp, if I may so call it, when an effort was made to swallow liquids, constituted the sum total of my findings, which, together with a history of an injury such as this boy had would have justified a probable diagnosis of rabies. But diligent inquiry at this time failed to develop any such history, and I was inclined to believe that the manifestations

were hysterical, and were probably started by the effort to give him oil.

Instructions were given to keep him quiet and report any further developments. Nothing further was reported during that day.

Monday, February 21, at 2 a.m., forty-eight hours after the first signs of any illness, I was hastily summoned by the father, who reported over the phone that the boy, who was sleeping with him, was extremely restless and did not seem quite at himself. Twenty minutes later I reached the house, and found the boy extremely restless, rolling from one side of the bed to the other, jumping up in the bed, talking rapidly and constantly, and spitting incessantly in an effort to clear his throat and mouth of the thick saliva, occasionally crying out as if in pain, a slight tendency to opisthotonos. The body was cold and bathed in a profuse perspiration, pulse was rapid and thready, about 180 as nearly as I could count it; owing to the extreme restlessness no effort was made to take the temperature; the pupils were widely dilated; there was a look of great anxiety and fear.

The father said he had not been able to swallow any liquids during the previous day. These attacks of extreme restlessness, in which it was necessary to restrain him and which were excited by noises, as the opening or closing of the door, a draught of air or any attempt to drink liquids, lasted from three to five minutes, were always preceded by a few spasmodic twitchings of the arms, face and muscles of the chest, and a wild maniacal laugh; the excessive spitting was continuous, both during the periods of excitement and quiet. During the periods of quiet he answered all questions promptly and intelligently, said he had no pain and would always say to his father after one of his spells of excitement, "Now, Papa, I will keep quiet and not do that any more."

Dr. Brainerd was called in consultation, reached the bedside about 5:30, and

a further diligent inquiry developed the fact that the boy had been bitten, as above reported. The symptoms narrated continued without interruption until 8:30, when he became unconscious, spasms ceased, failed rapidly, and died at 9:45 a.m. The extreme restlessness, the wild delirium, the hysterical laugh, the terrifying cry, as of a wounded animal, the wild and staring eyes, form a picture, once seen, never forgotten.

In regard to treatment: At 2:45 he was given a quarter of a grain of morphine with one-fiftieth grain of atropin, hypodermically, which failed absolutely to make any impression, other than a slight reduction in the amount of saliva. At 3:30 he was given a hot mustard bath. Placing him in the water brought on the most violent stage of excitement which we had witnessed, and it was with difficulty that his father and I were able to restrain him. When he had been in the water, however, about five minutes, he relaxed and quieted down and remarked that he felt "bully." He was kept in the bath about twenty

minutes; fifteen minutes of that time he was quiet and remarked a number of times that he felt good. This was the longest quiet period noticed. He became restless immediately after his removal from the bath, and at 4 o'clock the morphia was repeated, without, however, any quieting effect, but still further reducing the amount of saliva. Inhalations of chloroform were then given and continued until Dr. Brainard's arrival at 5:45.

Dr. Brainard suggested one-thirtieth of a grain of apomorphia, which was given hypodermically. This produced prompt emesis, the ejected fluid amounting, I should say, to half a pint, dark stained. No other noticeable effect of the apomorphia. At 7:15 fifteen grains of chloral and thirty grains of bromide of sodium were given per rectum. At 8:30 he became comatose and died as above noted at 9:45.

Dr. Black, who made the autopsy and examined the brain, is present and will report the microscopic findings.

Delta Building.

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## UNCINARIASIS—REPORT OF A LOS ANGELES CASE.\*

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BY JOS. M. KING, M.D., LOS ANGELES, CAL.

On November 6, 1909, S. U., Japanese, male, 26 years of age, single, poolroom operator, came to our office complaining of uneasy sensations in the epigastric region, of gurgling sounds heard there, and of his inability to do much work on account of weakness.

His family history was negative. His habits were good; he never had syphilis or gonorrhea, and did not use alcohol or tobacco to excess.

He had lived in Japan until twenty-four years of age, by occupation a farmer. He stated that he was never ill during this time. He then emigrated to Mexico, where for seven months he worked underground, barefooted, in a

damp coal mine, about one hundred and seventy miles east of Mazatlan. He was not sick during this time, did not have any irritation or trouble with his feet, and did not know of any prevailing sickness among his mates. Finding the work hard, and tiring of it, he had given it up and returned to Mazatlan. His sickness began three weeks after leaving the mine, at which time (Sept., 1908) he entered a hospital. The attack came on suddenly with a fever, abdominal pain, and many very loose and copious bowel movements daily, in which there was much blood. Several others were similarly affected.

He was confined to his bed for a long

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\*Report of a case before the Los Angeles Clinical and Pathological Society.



time, but was finally able to leave the hospital in the latter part of February, 1909, remaining in Mazatlan during March and April, at the end of which time he had recovered sufficient strength to travel, and came to Los Angeles.

He had not been well since, sometimes feeling better, sometimes worse. Three or four months ago some oedema of the feet and ankles was present. His appetite was moderate, and besides the borborygmi and bowel symptoms previously noticed, he also had flatulence and nausea.

Headache was common, insomnia troubled him at times and there was some dizziness.

Fugitive joint pains were present. Slight abrasions of the skin heal very slowly. No epistaxis or other hemorrhages have occurred—he has never had any cough or expectoration. Shortness of breath and palpitation were present on exertion. He seemed somewhat apathetic. His temperature on his first visit was 99° F., pulse 80, full but easily compressible, respiration 20.

Physical examination revealed a well-nourished man, 5 ft. 2 in. tall, weighing 145 lbs., which was his normal weight.

He appeared somewhat anemic, and his skin was dry and harsh, a condition which had existed for seven or eight months. His muscles were flabby but not wasted, and the superficial fat was well preserved.

Nothing abnormal was observed about his head or neck except some cervical pulsation, nor anything abnormal found in his chest except a hemic systolic apical murmur. Heart dullness was normal.

He was slightly pot-bellied, and complained of tenderness on epigastric pressure. Liver dullness normal. Spleen not palpable. No evidence of ascites. On inflation the greater curvature of the stomach was found to be on the level of the umbilicus.

Urine—specific gravity 1015. Neutral

in reaction, no albumen, sugar or casts present.

Blood—Hemoglobin 45%, (Dare), reds 3,000,000, paler than normal and with slight poikilocytosis, no microcytes, megalocytes or nucleated forms being seen.

Leukocytes 10,000. Differential count of whites gave polynuclear neutrophiles 55%, lymphocytes 20%—large mononuclears and transitionals 5%, eosinophiles 20%, basophiles none seen.

The combination of marked secondary anemia without wasting, eosinophilia, stomach symptoms, and a disease contracted in Mexico lead to a probable diagnosis of uncinariasis, but owing to our inexperience we at first overlooked the eggs in the stools, although they were diligently sought for. Finally Dr. Jenks succeeded in demonstrating them beyond doubt, they being very numerous and easily found when once recognized, thus establishing the diagnosis. No ameba were discovered. Occult blood was present. The eggs were incubated and observed in all stages of their development, the embryo being hatched out.

Several doses of thymol were given after the method advocated by Stiles. The patient was put on a light diet for a day, and a large dose of Epsom salts administered. On the following morning at 6 a.m. thirty grains of thymol were given in ten-grain capsules, at 8 a.m. another dose of thirty grains was administered, and at 10 a.m. a dose of salts. The patient was directed to avoid alcoholics, fats or oils, as these act as solvents of the thymol and permit its absorption, a thing to be avoided as far as possible, as the thymol is intended for the worms, not the patient.

After the administration of thymol the stools were collected and strained through gauze, the worm being found, both male and female specimens. It proved to be *Uncinaria Duodenalis*, or the old world hookworm. As was to be

expected, the infection taking place in Mexico, where this variety prevails.

Five days after each treatment the stool was examined, and if eggs were found, the dose was repeated in a week from its previous administration.

This case is not reported because it presents unusual features, for with the exception of the rather violent onset with frequent and bloody stools which might suggest dysentery, his symptoms and physical signs were typical of his affection; neither is it unique in this section, previous cases having been seen, but I desire to call the attention of the profession in Southern California to its occurrence here. While this is an imported case, and all others of which I have knowledge came from Mexico or the Orient, it seems possible that with our semi-tropical climate and sandy soil in many places, that indigenous cases may occur.

Of course, our excellent sanitation in most country districts, long dry summers, and lack of trees militate against its rapid spread, but when we consider that Mexico and South America are full of it, and that many Mexican peons come to this country annually; that Japan and the Philippines are infected, with the large number of Japanese laborers here, and that there are thousands of cases among the whites in our own Southern States, not a few of whom, notably from Texas, are emigrating to Southern California, the occurrence of cases here, indigenous to the soil, should not excite surprise.

In any case exhibiting secondary anemia with rather indefinite stomach symptoms, particularly if eosinophilia is present and the patient has been working in the soil, the presence of this parasite should be thought of, and the stools carefully examined for its eggs.

## PTOMAINÉ POISONING—REPORT OF ELEVEN FATAL CASES AT SAWTELLE, CAL.

BY G. W. PECK, M.D., SAWTELLE, CAL.

Before beginning a special report of these cases, I desire to state that to the physicians actively associated with me in treating the stricken persons at Sawtelle, great credit is due for their cordial co-operation, skillful professional services, and the unselfish manner in which they performed their labors will be long remembered by everyone in this community. They were Doctors G. A. Fielding, Mortensen and G. W. Campbell, deputy coroner of Los Angeles County, who performed the autopsy. A further statement may be made in this connection that all of these doctors were unanimous in their diagnosis of ptomainé poisoning.

At the residence of B. Preciado on

Eleventh street in the city of Sawtelle, California, between the hours of 3 and 4 p.m. Sunday, January 2nd, 1910, there were gathered twelve persons representing the Valdez family. The mother with her daughters and sons, their husbands and wives and their progeny were there. They were named as follows: Mrs. G. D. Valdez, aged 49 years; Francisco Garcia, aged 8 years; Alfonso Garcia, aged 4 years; Dolores Garcia, aged 36 years; Mr. G. Reyes, aged 58 years; Mr. B. Preciado, aged 38 years; Mrs. B. Preciado, aged 34 years; Marcia Preciado, aged 4 years; Virginia Preciado, aged 3 years; Mrs. G. Fernandez, aged 31 years; Ysabel

\*Paper read before the Los Angeles County Medical Association, February 7, 1910.

Fernandez, aged 2 years; Miss Ramona Garcia, aged 13 years.

It was a happy, cheerful gathering, and a lunch was hurriedly placed upon a table of such eatables as could be furnished with the least delay. After all was ready they gathered around the table and ate that dinner which proved, as the sequel will show, to have been mingled with a deadly poison, the partaking of which forbade their meeting again, in so far as this world is concerned. During the feast the mother called attention to two glass jars of preserved pears which she had put up with her own hands, last September. One was a half-gallon jar, the other a pint, and they had remained untouched until they were opened on that day, and placed upon the festal table as part of the lunch. But it seems they were seasoned, kept and preserved for this occasion by him who is frequently a guest at such gatherings but *never* an invited one.

Soon after eating they separated, the several branches of the family departing for their respective homes, eight of them remaining at the Preciado residence.

On Monday morning, January 3rd, Mrs. G. Fernandez complained of slight pains and disturbance of the stomach accompanied by some headache. Gradually she grew worse with indefinable feelings, until about 4 p.m., when, becoming somewhat alarmed, she sent for me with the request to come as soon as possible. Having been their family physician for about five years and knowing them to be a healthy family, I answered the call, thinking that some slight ailment would be found. Upon my arrival and entering the sitting-room, the woman was presented to my view, sitting near the center of the room in a rocking-chair, holding in her arms her two-year-old daughter. Never

in all my many years of practice has such a picture presented itself to me upon entering a sick-room. It would be impossible to describe the impressions received as I stood and gazed upon the stricken mother and child. Irresistibly the conviction forced itself upon me that I stood in the presence of death, and that its fatal stroke had fallen. The woman's head seemed to be loose upon her shoulders when she tried to move it; marked inco-ordination of the muscles of the neck was strongly in evidence. Her head was bowed partially upon her chest, in which position she held it most of the time. Her cheeks bore a slight deadly flush, but did not indicate fever. Her eyes were almost closed; the lids appeared to be wearied. Her general appearance gave the impression of life struggling with death in a losing battle. The mouth was slightly open, from which, with her handkerchief, she was continually removing the fast forming saliva, which was quite thick and tenacious. Upon examination of her tongue, it appeared thicker than normal and was evidently slightly paralyzed. She moved it with difficulty. It was covered with a heavy white, foul coating. She complained of her throat, saying that it felt badly, and that she could not swallow without difficulty. She could not swallow even a teaspoonful of water without choking violently. She was asked if she felt any pain in any part of her body and she replied that she did not, only some aching above the eyes. She complained that she could not see good and that there was a mist before her eyes. Upon examination the pupils were found dilated, but accommodation at this time appeared nearly normal, but reflex to light was quite deficient. Her temperature was slightly sub-normal, pulse 120, weak but regular; respiration be-



tween 25 and 30 and quite irregular. She talked with great difficulty. The action of the kidneys, as near as could be ascertained, was and had been fairly good. The skin was slightly moist, rather cool and felt unnatural. There was no recognizable paralysis of the arms, hands or lower extremities, but inco-ordination was evident when she arose and attempted to walk. Vomiting had occurred but once, slightly and only with the first symptoms. Elimination by the bowels had become *nil*, neither could it or vomiting be induced from this time forward by any course of treatment to any extent, so far as to be of any practical benefit. The woman presented the appearance of laboring under the influence of extreme alcoholic intoxication, except that her intellect was clear, and her ideas presented in a perfectly normal manner. She was persuaded to go to bed with difficulty, and when she was placed there, she refused to lie down and was placed in a reclining position, supported with pillows. Her child was placed beside her in a semi-conscious, toxemic condition, bearing the impress of a fatal termination. After obtaining all the information possible under the circumstances at the time, a diagnosis of ptomaine poison was made, of a deadly nature and of an unclassified type. This was made with some reservation at the time, having never met with a case which presented so many peculiar symptoms, and in which so many of the symptoms which are characteristic of ptomaine poison were absent. After the patient was placed in bed she slowly grew weaker, the pulse slightly more rapid and weak, the respiration more frequent and about two hours before the end she fell gradually into a quiet and peaceful slumber, but which lacked the impress of a normal repose. She died at 10:30 p.m., Tuesday, January

3rd, 1910. In this case as in the others there was an absence of muscular contraction, twitching and convulsions, until just before death, and then there were none of a marked character and none that would not be naturally expected. There was no outcry of physical anguish, but evidently there was considerable indefinable suffering of a peculiar nature. Her child lay quiet and peaceful some two hours before its death, dying an hour before its mother.

This case has been used as a type in describing all, or nearly all of the important symptoms which were common to all the other ten cases. But, as it would be reasonable to expect, there were many individual variations, some of which will be mentioned.

B. Preciado lived 65 hours after having eaten the fatal meal, and was under continual observation all of that time. He made the first remarks about his stomach at about 10 p.m. Monday evening, 32 hours after Sunday's lunch, and said it felt hard and bloated, and he believed he was going to be sick. About 11 p.m. he vomited once quite freely, but did not complain of any pain. Vigorous treatment was commenced and continued as long as there was any hope. He kept on his feet continually from 10 p.m. Monday until Tuesday at 4 p.m., helping and waiting on the sick. We tried often to persuade him to lie down, but he would reply, "No, no, Doctors, let me stand up. I can fight it off better *here*." Significantly at the same time striking his chest with his hand. He seemed conscious that if he lay down he would never rise again. Finally he was persuaded to lie down about 4 p.m. Tuesday. He then called me and taking my hand, bid me good-bye, saying, "Doctor, I am going to die." He was cheered up by being told that we would pull him through, but he replied, "No, no, I will not see you again; there is a mist be-

fore my eyes." This mist was characteristic and was spoken of by all of the adult patients at a certain stage in the progress of the disease. From this time on his symptoms were similar to the others, but somewhat milder and more slowly developed. He lived until 7 a.m. Wednesday, January 5th, and then his brave fight being finished, he rested, having been engaged in the struggle 33 hours from the time his first symptoms were observed. This man was 38 years of age, about six feet in height, weighed about 170 pounds and was a splendid specimen of physical power. In fact all of the eleven were healthy and robust, apparently without a blemish.

The effect of the poison in the case of Mrs. B. Preciado, the only one who survived, was practically the same as in all of the other cases, only that it was manifest in a slighter degree. Her temperature ranged from 96 to 99 degrees. There was the same rapid and weak pulse, hurried respiration and considerable apparent toxemia. But all of the other symptoms were of a much milder character. After the first few days all the symptoms declined very gradually, with erratic exacerbations and were practically absent on the 13th of January, when she was pronounced out of danger. This woman ingested but a very small portion of the poison, having only tasted the fruit, thereby escaping death by a narrow margin. The younger patients that came under my notice manifested the same general and peculiar symptoms. The four that died in Santa Monica were not under my observation, but from all information received were all similar as to the action of the poison and its effect, except that Francisco Garcia was the only one taken sick almost immediately within two hours after eating the pears; he did not vomit at all, but

otherwise his symptoms were practically the same as the others, except that he complained of pains in his heart and remained conscious until death. He died Monday, January 3rd, 1910, at 4:30 p.m., about 25 hours after the lunch of Sunday. It was reported that he ate more freely of the pears than any one of the twelve, having eaten three sauce dishes full. He was eight years of age, a healthy and hearty boy.

The origin of the poison was generally admitted to be the pears which were contained within the two glass jars, especially the half-gallon jar; the pint jar not being opened, all the pears eaten were taken from the half-gallon jar. Mrs. B. Preciado made the statement that the pears had been canned by her mother, Mrs. G. D. Valdez, last September, and were the only pears canned, having been kept on a shelf in the pantry at the Preciado residence. She stated that Sunday, the day the fruit was eaten, she noticed when she opened the jar that air bubbles were seen to arise to the surface, and that she tasted the pears and found them sour, but corrected herself by saying, "Not exactly sour, but they tasted sharp, and bit or tingled my tongue and throat," and that she spat them out, and ate only a very small piece. After the dinner she turned the remaining portion that was not eaten into a porcelain-lined pan, and warmed or heated them over, after which they turned dark, whereas before they were a light cream color. In all, about three-fourths of the pears were eaten.

From observation and all information obtainable, I would judge that slight pains and nausea were present in a majority, if not all of the cases, as the two primary symptoms. But nothing more than is common in any slight attack of indigestion, and as such would not be available either to the patient or

to the physician as a warning of such consequences as followed in these cases.

In questioning the adults, it was with extreme difficulty that any well defined and clear description of their subjective symptoms could be obtained, and in a general way were referred by them to the eyes, the forehead, tongue, throat and chest. After being attacked, the adults that came under my notice seemed to entertain but little, if any, hope of recovery. From this fact, alone, it would be reasonable to draw the inference that the powerful action of the poison upon the nervous system was such as to carry the conviction to the intellect of the victim of his hopeless condition. This is perhaps a psychological theory or deduction, and subject to severe criticism, but, psychologically speaking, it is a reasonable deduction, or theory. And let me say in this connection that the time has arrived for the medical profession to delve more deeply into the intricate philosophy of psychological science.

As near as could be ascertained, the average length of time for the eleven fatal cases from eating the fruit on January 3rd until their demise, was 40 hours; maximum, 63 hours for B. Preciado; minimum, 25 hours for Francisco Garcia. Average time from eating fruit until the first symptoms were observed, about 23 hours; minimum, 2 hours for the boy, Francisco Garcia; maximum, 30 hours for B. Preciado. Average time from first symptoms until close of life, 18 hours; minimum 12 hours, Dolores Garcia and Alfonso Garcia; maximum 33 hours, B. Preciado. The treatment was heroic or conservative as seemed best adapted to individual cases of symptoms, but in a general sense there was but little or no response at any time that was of such a character as to give us much hope of success. The clinical picture presented by a description of these cases and their study at the bedside leads the mind into a

strange labyrinth of many speculative theories, which perhaps are neither instructive nor practically profitable, and yet, from a chaos of theory it is conceivable that there might be evolved, and verified by a scientific investigation, some laws and facts, the knowledge of which would be of considerable importance to the human race. It is to be much regretted that an exhaustive scientific investigation could not have been made from the material which was available for such purposes and furnished by these cases.

It is my belief that the ptomaine (if such it was) which caused the wholesale destruction of this family was generated or produced within the body after introduction into the stomach and its contents of a toxic-producing micro-organism, such micro-organism having first been introduced, cultivated and multiplied in the resulting medium produced by the fermentation of the canned pears, and which after its introduction into the stomach, with, or without, a produced ptomaine (most probably without) found there a medium specifically adapted to its multiplication and the elaboration of its own specifically produced ptomaine. Such theory would more nearly explain the delay of first symptoms and their marked variations. Such micro-organism might have been introduced into the fruit when canned and there lay dormant until by the action of the organisms, which produce fermentation, the medium was formed which was adapted to their propagation and multiplication, and yet there might not have been produced by them a toxic ptomaine within the fruit, but only by their action after introduction into the intestinal canal. If such a theory could be proved to be correct, then the question would arise whether the introduction of such a micro-organism into other fruits would produce, by an analogous process, the same



results. My opinion is that it would not, THE POISON AND ITS SELECTIVE ACTION AND THE ABSENCE OF PAIN.

These patients having experienced but little, if any, pain, and not being able to give any satisfactory account of their subjective symptoms, appears strange, as their intellects remained clear until near the end, which seems to justify two important conclusions. First—that the higher cerebral centers were not specifically or primarily involved with the pneumogastric nerve or the vital organs supplied by its branches and upon all of which the poison undoubtedly exerted a primary and selective action. Secondly—as the post-mortem showed that the action of the poison had produced irritation of considerable degree, and destruction of tissue, or at least its vitality, from which no sensation, or but little, was experienced, pain being usually realized in such condition to an extreme degree, it would be reasonable to assume that the poison was an anesthetic compound of a very deadly and destructive nature, the anesthetic action of which preceded to a slight degree its irritative and destructive power. Hence, no sensation of pain being received, to any extent.

If this be the true conception of the conditions presented, then the mind can quickly grasp the situation and realize at once how futile the efforts of either the patients or the physicians were in combatting such a foe, be it an old one or a new one, when its advance and presence is not discernible or even perceptible until its fatal work is practically finished.

Let me say here, knowing that physicians are not always infallible in a diagnosis at a bedside, that this paper is not based solely on such diagnosis, but more specifically upon the report of the autopsy and chemical analysis of the autopsy surgeon, whose findings and evidence support and endorse such diagnosis.

In conclusion let me say, in view of

the facts herein submitted and which disclose the destruction of the eleven human lives so quickly and so mysteriously, that perhaps it would be well to seriously ask ourselves, as physicians and men of professional attainments, what is or was this agent of death? Is it old or new in the history of medicine? From whence, and how generated, at the touch of which the active phenomenon of human life ceases to be manifest? The asking of the question is easy, but the answering involves the unfolding of many secrets which lie fast locked within the infinite recesses of nature's great storehouse. All of which, when opened, and their contents properly understood and applied for the healing of human ills, a time to which and for which all good physicians strive, then perhaps, it may be said, there will be "no more death, neither sorrow nor crying." Who has the keys? Good-night.

#### DISCUSSION.

DR. G. A. FIELDING.

As the statement was made at the late meeting of the Los Angeles County Medical Association, February 4th, that ptomaine poison in all probability originated in the tamales eaten at the dinner, the eating of which caused eleven deaths at Sawtelle, it seems proper for me as one of the physicians in attendance on these cases to say that the reason why the tamales were not mentioned by Dr. Peck in his paper read before the Society was that the physicians present, myself being one of them, made a careful investigation of all the information obtainable and found that a number were poisoned and died who did not eat of the tamales, but did eat of the pears. The tamales were not mentioned in his paper on that account. And he with the rest of us supposed that the Society would give the physicians who attended the cases at least credit for making a very careful investigation before deciding that the poison originated in the pears.

## MEDICAL EXPERT TESTIMONY.\*

BY ANDREW STEWART LOBINGIER, A.B., M.D., LOS ANGELES, CALIFORNIA.

A strong sentiment has developed in this country in recent years calling for reform in the appointment of the medical expert witness. The abuses out of which this demand has arisen are partly attributable to the bar and partly to the medical profession. They are more directly due to an astonishing laxity in the regulations of the judiciary, whereby such matters might be, but are not, properly controlled.

For more than a generation the testimony of the medical expert has been a purchasable commodity. From a factor whose learning and experience should prove a distinct assistance to the court in determining the adjudication of technical difficulties, the medical expert has, by virtue of the false position he has been brought to occupy, become an object of ridicule and contempt. Why is this true? There are several very obvious reasons:—

1. By the present method of choosing the expert witness he is at once the victim of bias and becomes an advocate for the side that employs and pays him.

2. Experts are not selected chiefly on account of any special fitness or training in the subject on which testimony is to be offered, but as to whether they shall prove to be strong partisans and clever defenders of the side which employs them.

3. Such a system of selecting the expert, and the discourteous methods of counsel in cross-examination, creates a genuine disgust and aversion among modest and scholarly professional men for appearance on the witness stand. The result is that the best talent is not obtainable and the choice must lie amongst inferior minds, if not, as fre-

quently is seen, amongst actual pretenders and charlatans.

4. It is therefore manifest that the number of so-called experts, who receive their compensation at their own appraisal from the side employing them, is limited only by the capacity of the purse of the employer. This fact and the diametrically opposite testimony of professional men of equal standing, not uncommonly converts a trial into a travesty, from which neither court, counsel nor jury can extricate it.

Other evils complicate and prolong the action and prove subversive of the ends of justice. One of these is the lengthy and involved "hypothetical question," the answer to which has been prearranged before the question is asked. Another is the custom of opposing counsel to anger, disconcert and unhorse the witness by every artifice or coarse and offensive aggression which may be employed.

No physician or surgeon who values his self-respect or cherishes the dignity which years of learning, experience and culture have brought to him, will voluntarily subject himself to such an ordeal of abuse for any compensation which can be named.

The expert witness should not only be a scholar in the special learning he is called to reveal to the court, but he should be sedulously shielded and graciously encouraged, so that his testimony may be couched in clear language and be most informing. Is not that the object for which he is called? Are not the courts the forums of justice? If so, then we must see to it that conditions are permitted to prevail which shall keep inviolate the

\*Address delivered at a dinner given by the Los Angeles Bar Association to the Supreme Court of California, October 15, 1909.

plain and obvious facts of science and not enshroud their simple relating in the befogging and boisterous controversies of partisans.

The conditions which should surround the medical expert must be established by the court and bar and by them be consistently maintained. If the Legislature has not properly provided for this espionage so that the ends of justice may be at all times insured, then it is clearly the province of such distinguished bodies as yours to effect the needed reform.

No matter what the legislation or the attitude of the law may be, it must be remembered that the laws of medical science are not affected. Only men of scholarship and repose are qualified to properly interpret them.

If the vice of prejudice is permitted to dominate the selection of the medical expert, then a prejudiced and superficial opinion need not surprise us. Nothing can rescue the expert from this obliquity, whose measure of integrity is the price paid for his time in court. Such a witness invites contempt; he inspires abuse, he arouses the belligerency of counsel and incites to disconcerting and embarrassing scenes, utterly unworthy of the respect due to members of honorable professions.

I have such knowledge of the truth of these observations that, were it not invidious, I could here cite in proof of them the names of many of the most distinguished surgeons and physicians in this country who refuse to appear in court because they are unwilling to be made ridiculous by some smart, bumptious attorney desperately bent on winning his case. And I submit to you that these gentlemen are in nowise lacking in a proper sense of humor.

It should not be taken from these remarks that the writer is oblivious to the many cases of record where the medical expert has been wholly com-

petent, honest and disingenuous, and where counsel and court have treated him with the proper dignity and respect. Such ideal conditions prevail where the factors are ideal. That they are refreshing exceptions, however, to a limp and decadent practice, is only too well known to every man of experience.

What can be done then to insure a proper selection of a medical expert and the best and most informing testimony from him?

In Germany the appointment is made by the court and the expert is required to appear whenever called by a judge. There is a penalty attached for disregarding the summons and the commonwealth provides a moderate fixed compensation together with expenses for appearance, and testimony in court. So that the medical expert may be regarded in Germany as an officer of the court. And the same relation exists in most all of the other continental countries. It is regarded an honor and distinction to be thus designated and there is every courtesy and dignity attendant on the office which its responsibilities should entitle it to. But the utmost care is observed in the choice of physicians and surgeons as official experts, that only men of known special scholarship and highest training and personal integrity are selected.

In England and her colonial possessions and in the United States to a large extent, the expert is selected by counsel and the court is not consulted.

Last year a bill drafted by the New York State Bar Association and the New York State Medical Society and New York Academy of Medicine, was introduced into the Legislature of the State of New York, which provided that the Justices of the Supreme Court assigned to the Appellate Divisions should designate at least ten, and not more than sixty, qualified physi-



cians and surgeons in each Judicial District who could be called as medical expert witnesses by the court or by any party to a civil or criminal action, and who, when so called, should testify and be subject to examination and cross-examination as other witnesses are; that any designation might at any time be revoked without notice or cause shown, and any vacancy might at any time be filled; that when so directed by the trial court, witnesses so called should receive for their services and attendance such sums as the presiding judge should allow to be at once paid by the fiscal officer of the county in which the trial is had and that the act should not be construed as limiting the right of parties to call other expert witnesses as heretofore. The bill passed in the Assembly but failed in the Senate. It will be presented to the next Legislature and it is regarded by the bench and bar of many of the states as a long step toward the solution of a vexed and important problem.—(Judge A. T. Clearwater, June, '09, *North American Review*.)

In many of our cities an understanding exists between the bench and the medical profession that certain men known to be distinguished in a special department of practice shall be regarded as eligible experts, and from a list of these a choice can be properly made. This has not been made mandatory by statutory enactment, but it has been found to be a feasible solution of many difficulties and has greatly facilitated the trial of insanity and other cases where special technical knowledge is demanded of the witness.

Were it not for the Sixth Amendment to the Constitution of the United States and the State Bill of Rights, granting the accused, in criminal actions, the privilege of facing the witnesses against him, the taking of medical expert testimony in criminal cases could be greatly expedited by direct

report of the findings in a case to the court and jury, or to the court alone, were that admissible. It would do away with the tedium of prolonged controversy over unessential technicalities. It might deprive garrulous attorneys and presuming medical men of much public notice which they could not otherwise obtain; but it would contribute immeasurably to the dignity of our courts.

It is quite obvious from the opinions which have been repeatedly given by jurists that the "hypothetical question" is the proper vehicle of supposed fact by which the expert's opinion may be conveyed to the jury. But however much it may remain in favor with the court and bar, the laymen and the medical expert himself still looks upon its practical working out as little short of a farce. If the bar feels itself competent to so abridge the text of these questions as to make them less ludicrously absurd and make the anticipated answer more logical, a long step will have been taken in wholesome reform.

Neither the practice of law nor the practice of medicine need ever depart far from the realms of common sense. It is quite unnecessary that either profession should adhere to rules of practice which persistently call down contemptuous ridicule. Can any of us deny that such has been the universal verdict of the people in certain notable criminal trials in this country in the last decade?

It would seem that reform of these unhappy conditions would be most cordially fostered by the bar. But I was recently somewhat puzzled, in a notable contribution on this subject from the pen of one of America's most distinguished jurists, to read these words: "It is universally admitted that so grave a defect in the administration

of justice should be remedied, and it is conceded that the defect is of such long standing that reform will be slow and difficult, largely because of the inertia of the bar. I regret to say that I have found a greater degree of enthusiasm for better methods among physicians than among lawyers."—(Hon. A. T. Clearwater in *N. A. Review* for June.)

I have faith that what Judge Clearwater designates "the inertia of the bar" may be merely an expression of the very proper dignity and conservatism which has ever hedged about proceedings of the law, and that when the bar becomes fully awakened to the proportions and universality of these abuses it will rise in its power and overthrow the men and measures which perpetuate them. Certain it is that if we are to improve the status quo of the medical expert, we shall scarcely succeed by poking fun at the illiteracy or inconsistencies of one whose very density makes him impervious to scorn. It would seem the better way would be to establish standards of fitness which should govern the selection of the medical expert and that this selection should be delegated to the judges of the court.

The evidences of liberal learning, high ethical character, scholarship and extended training in a special branch of medicine or surgery, and a reputation as a studious and conscientious practitioner, should be the distinguishing elements in the medical expert. Such men may be found in every populous community in North America, and conspicuously so in cities of a population of one hundred thousand and over.

In any measures looking to genuine reform, both as to the selection of experts and the taking of testimony, the bar will find a very cordial co-operation from the representative men in the medical profession. To most of

us the office of medical expert is now a most distasteful ordeal, to be shunned wherever possible. If you wish the best that we can give you, you must win our confidence, treat us graciously and as far as possible relieve us of unnecessary embarrassment. A very great and sane jurist has recently said: "Scientific opinion to be of controlling value can be given only under conditions of mental repose. The haggling, sharp interruptions, uncalled-for wit, insolent comment and other too common features of important civil and criminal trials, are not such conditions. While they put some witnesses on their mettle they throw the majority and the more competent into a state of mind in which all sorts of stupidities may be expected."

We have a right to require the highest learning and qualifications from not only the medical expert, but it has seemed to me that something exceptional in cleverness and versatility may reasonably be expected of the barrister who interrogates him. One need not attend many trials where experts appear, to discover what a hurricane of chaff is sometimes—ofttimes—raised, in the winnowing of a few grains of truth. It is an ancient subterfuge and is not limited to legal procedure. But it deceives no one so much as this species of counsel himself, and is an intense weariness to a patient witness, court and jury.

It is therefore clear that here again is afforded an opportunity for a distinct reform, to the end that in the examination and cross-examination of an expert witness the strictest brevity consistent with securing a clear statement of scientific truth should be observed. And this must not be construed as leaning favorably to categorical answers when a word or two of explanation or illustration would be invaluable. The court should always secure

to the expert the privilege of making clear a technical point to the jury by any regular and accepted method employed in modern scientific demonstration. It is not only a prerogative of the witness, it is a distinct duty he owes to the court and to the jury.

Nothing can be more bewildering in the decorum of a court proceeding than the petty haggling or the presumptuous bravado with which a lawyer, conscious of temporary advantage over his adversary, seeks to make a victim of the expert witness sitting helpless before him. I have been present, sometimes as spectator and sometimes as witness, on a number of these edifying occasions and I have marveled at the *sang froid* of the honorable court as the advocate, fierce, red-faced, in mock choleric heroics, paced threateningly up and down before the witness, terrifying as "an army mighty with banners."

It is indeed a most impressive spectacle and one cannot doubt may contribute somewhat to relieve the tedium and stagnant atmosphere of a drowsy court room.

One hesitates therefore to be rudely disillusioned of such a vision, but it would appear to be a quite unnecessary and superfluous vocal disturbance and contributes so feebly to the scientific competency of the expert, and to the gracious ends of justice, as to lead one to the inquiry, "could it really by any peradventure be dispensed with?"

Again we have been greatly instructed by the spectacle of skin and cancer specialists, obstetricians, rhinologists and general practitioners, with a lifetime experience comprehending possibly six cases, taking the stand as expert alienists to pass on the sanity of a homicide. These gentlemen can, and usually do, qualify as experts. They are to be found graciously blessing every community with their marvelous

versatility; for they pose as "specialists" in any department of medical science which conveniently calls them to duty.

Aside from their readiness to illuminate the mind of counsel groping in the dark, they make equally admirable expert witnesses whether called by the defense or by the prosecution. Sometimes, on occasions it is said, through some *lapsus memoriae*, representatives of this cult have been known to testify with equal credibility on each side,—usually, however, with a respectable interval of time intervening between appearances. Or having been called by the state, and, on account of its depleted exchequer not becoming available, they have proved a most serviceable and valued succor to a struggling defense. Thus have we seen these valiant exponents of a great art and science distinguish themselves—and us.

A prominent member of the bar once said to me: "You of course know Doctor So and So." "Very well," said I. "Do you know," said he "he makes a capital witness." "Yes," I answered, "he is a very brave man."

"That is it," said he. "You can't disturb him. He answers 'Yes' and 'No' and sits as stolid as a bronze statue in the presence of a tempest of grilling and abuse."

This genus of the species medical expert is sometimes as celebrated for his "smartness" and repartee as his brother is for stolidity. For every Roland from the castigating tongue of counsel he returns a stinging Oliver.

Such corruscating rhetoric sometimes enlivens a sultry courtroom; but how much more does it create a sense of pity and disgust in the minds of sincere men, whose standards of ethics and of learning lift them above such coarse usage.

It seems quite manifest that the time has come for members of the bar and



medical profession to undertake a concerted movement toward reform.

While efforts have been made in various states as Maine, Massachusetts, Pennsylvania, Indiana and New York to secure legislation which shall define the qualifications and appointment of the expert, as yet the best hopes have failed of fruition.

While the act which passed the New York Assembly has very many admirable features in it it lacks the broad spirit and dignity of the German system. I have doubts if we could improve on the conditions which govern the medical expert in the German Empire, and hence, with certain slight modifications which would make it adaptable to American practice, I believe we cannot do better than to endorse its adoption here. Its adoption in American courts would instantly divest the medical expert of the obloquy which is the disgust of every decent citizen, and clothe him with the dignity and credit which is the deserved station of every scientific man.

Recently on motion of the writer the Los Angeles Medical Society voted to request the council of the association to appoint a committee, to confer with a committee of the Bar Association, looking to legislation on this subject which shall correct some, at least, of the evils which now render practically worthless much that passes as medical expert testimony. This committee will be appointed at an early day and it is sincerely hoped that much good may come from its deliberations jointly with one from your honorable body.

Why should conditions longer prevail, in this commonwealth at least, if the intelligent representatives of the two great professions chiefly concerned, and who are unanimous in their condemnation of the present wretched status, will unite in one powerful endorsement of legislation which shall effectually remedy this evil?

I have faith that the time never was more auspicious, the sentiment never more deeply grounded and the authority of a great body such as yours never so potent for the execution of this reform as at the present hour.

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#### CONCERNING TYPHOID CARRIERS.

Weber has demonstrated the possibility of determining the infectious nature of the dejecta of typhoid fever convalescents by a bacteriologic examination of the bile. The procedure is readily adaptable to either hospital or private practice, and providing recent claims are verified, will aid materially in preventing the dissemination of this disease. While living typhoid bacilli may only be an accompaniment of the dejecta of the walking typhoid convalescent at intervals, the stools of the walking typhoid contingent demand careful attention since the bacillus typhosus is undoubtedly an invariable concomitant factor and facilitates the divining of a condition sometimes diagnosed as general malaise. The author takes cognizance of the hypothesis that the gall-bladder is the habitat of the offensive bacillus and proceeds to obtain a specimen of the bile for examination. The method employed is to introduce about six fluid ounces of olive oil into the empty stomach and withdraw the gastric contents one-half hour later. This soon separates into two strata—an upper oily layer and a lower watery layer. The secretion of pancreatic juice is incited by the oil and a certain portion of this alkaline digestant is diverted into the stomach, carrying some of the bile thereto. According to Weber if chemical tests show the presence of bile in the siphoned stomach material the typhoid bacillus will invariably be found in the biliary secretion of typhoid carriers.—*The Physician and Surgeon.*

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## EDITORIAL

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### CRYSTALLINE STROPHAN- THIN.

Clinical men have never been very enthusiastic about strophanthus. Their chief objections to this drug have been the deterioration which it seems to undergo upon standing in solution, and the uncertainty of its action.

So divergent have been the clinical reports of strophanthus that recently the drug was accorded an extended chemical and physiological investigation.

Chemical attempts to isolate the active principle in pure form at last have been successful, and therapists now have access to crystalline strophanthin, so the alleged decomposition of its solutions may no longer stand in the way of its use.

Physiological experiments with the crystalline substance show that its

oral administration is followed by a slow and uncertain absorption from the intestinal tract, while muscular or intravenous introduction produces constant and characteristic effects. Probably these findings explain the divergent opinions so often expressed regarding the unreliability of strophanthus action.

These chemical and physiological contributions to our knowledge of strophanthus paved the way for a more accurate clinical study of its effects.

Hospital studies recently were made at Bellevue, New York, with the crystalline drug on more than half a hundred suitable cases including mitral disease, mitral and tricuspid disease, interstitial myocarditis with valvular lesion, interstitial myocarditis without valvular disease and val-

vular disease accompanied by a marked nephritis. In many instances observation was controlled by pulse tracings and blood-pressure records. The doses employed ranged between one-fifth and one milligram daily, the average being less than one-half milligram. Maximal effects occurred after three or four hours, and after ten hours the effects began to wane. To a physiologist the sphygmographical tracings taken before and after strophanthin medication offer evidence of its influence more tangible and impressive than any possible word picture. An analysis of the available data warrants our saying that when compensation is broken in interstitial myocarditis or in any form of chronic valvular disease crystalline strophanthin given intramuscularly is invaluable, and possibly the most valuable of drugs. However, in continuous use strophanthin is not so satisfactory as digitalin.

### ANTI-VIVISECTION ARGUMENTS.

The *Ladies' Home Journal* of March, 1910, contains an article entitled "Why Vivisection Is Injurious," by Rev. Floyd W. Tomkins, of Philadelphia, who is the President of the American Anti-Vivisection Society. This article appears in the department called "Both Sides of Life Questions." It will be answered in April by Dr. W. W. Keen, of Philadelphia, who will take as his title "What Vivisection Has Done for Humanity."

We know there are those who would sniff at discussing an article which appears in the *Ladies' Home Journal*, and

yet this publication with its hundreds of thousands of readers molds public opinion on a very large scale. Its educational capacity is in fact very well evidenced in that Dr. Keen is willing to write for publication.

We do not know along what line Dr. Keen will discuss his subject. His article, of course, was written prior to the publication of Mr. Tomkin's paper, but we are certain that it will be a far more logical and a much more sane presentation than that in which the Rev. Mr. Tomkins indulges.

Mr. Tomkins uses a great deal of language, and in trying to understand what he wishes to convey, one becomes almost as mentally beclouded as he himself seems to be.

It is a rhetorical and theoretical kind of argument which he brings forward, his conclusions being given with that finality which we not infrequently find among some of the gentlemen of the cloth.

He begins by stating that there are many groups among anti-vivisectionists as to what constitutes anti-vivisection, stating that some would include vaccination, the use of anti-toxins, and the dissection of frogs in schools by teachers and pupils, etc.!

He writes further that whole volumes could be written on the subject. That this statement is true we will agree if it is to be assumed that the discussion shall be a theoretical argument rather than a logical and scientific presentation of fact.

He states "that the first question, and one which he thinks lies at the foundation, or at least is one of the foundation-stones, of the whole matter at issue—is



this: Is the eradication of disease, the prolongation of human life, the increase of the comfort of living, the most important thing for men to strive after, or is the elevation and purification of character the ideal to be sought?"

In answer to this, he brings forth these untrue statements:

"But we are faced by two facts which seem to show that we must judge between the things temporal and the things eternal: First, in all the advance made through the centuries of civilization, *mortality has not really decreased in the world, nor has man's span of life been lengthened*; and second, the thing which has made living more endurable through the advance of these centuries has been the development of character regardless of the ills attending the body. From this we have a right to reason, not that we are to neglect the body nor to cease to battle against the ills, but that the elevation of character is the most important thing, and if, in seeking to bring health—the minor qualification—we hinder the advance of character—the major qualification—we must stop and proceed along other lines."

We might just as well discuss this last quotation to show what little right the Rev. Tomkins has to argue this subject and particularly to pose as speaking with authority and judgment as the president of a national antivivisection society. His ignorance on the actual facts regarding mortality is appalling, and in the light of the recent tremendous publicity given to this very subject by the Committee of One Hundred on national health, in its report on national vitality as prepared for the National Conservation Commission by Prof. Irving Fisher, of Yale, and printed by the United States Govern-

ment, Mr. Tomkins' seeming ignorance is absolutely inexcusable.

Let us quote from one paragraph of Prof. Fisher's monograph:

"Sec. 2. At different times.—In Europe, according to one authority, the *length of life has increased* in three hundred and fifty years *from less than twenty to about forty years*; in England, in less than half a century, it has increased about five years; in Prussia, in the last quarter of a century, over six years; in America it has also increased, although good life tables are lacking, excepting for life experience. The tables for Massachusetts for 1893-1897 show an average duration of life in that State of forty-five years, as compared with forty in 1855, and thirty-five, and estimate of 1789, based, however, on doubtful returns."

Read also the following excerpts from the same excellent work of Fisher:

"Sec. 5. Mortality historically.—*Death rates have been decreasing during several centuries*. In London, where now the death rate is only 15, it was during the seventeenth and eighteenth centuries 40 to 50, and during 1680 to 1728, a period of pests, it rose as high as 80. Similar reduction has also been experienced in this country. *In Habana the death rate after the American occupation fell from over 50 to about 20*.

"Sec. 6. Adult and infant mortality.—The greatest reduction has been effected among children, although the death rate is still undoubtedly high. Statistics show that during the last thirty years the death rate up to 50 years of age has decreased, but that beyond 50 it has remained almost stationary.

"Sec. 7. Particular diseases.—*The mortality from certain special diseases has greatly decreased*. The tuberculosis death rate is now in England only one-third of what it was seventy years ago. The death rate from *pneumonia* now equals that of tuberculosis. *Typhoid fever* is decreasing. In Munich during

1856 the mortality was 291 per 100,000 of population. The city at that time contained many cesspools. After these were filled up the typhoid rate fell to 10 per 100,000 in 1887, making a reduction of 97 per cent. In Lawrence, Mass., after the public water was filtered in 1893 the typhoid fever rate fell from 105 to 22. Dr. Kober has shown that death rates from typhoid fever are greatest in cities in which the rivers' waters are polluted, the average for these cities being 62, as compared with 18 for cities using unpolluted water of impounded and conserved streams. Dr. Rosenau concludes that any community having clean water and uninfected milk supply may be free from typhoid.

*Smallpox* has greatly decreased since vaccination has been employed. In Prussia the death rate per 100,000 from smallpox between 1846 and 1870 was 24. In 1874 vaccination was made compulsory, and the death rate for the years 1875-76 fell to 1.5. Similar figures can be given for other places. *The present outcry against vaccination is based on misinformation and on the general reasoning that it is unnatural to introduce a poison into the blood. Statistics show clearly that vaccination decreases smallpox and lengthens life.* Even though it were shown that the virus is injurious, it would be the lesser of two evils.

*Yellow fever* in Philadelphia in 1793 caused the death of one-tenth of that city's population within six and one-half weeks. In 1900 it was found that a species of mosquito transmits this disease. The result of this applied knowledge (Ed. Note: Knowledge acquired through experimentation) is that the disease has practically disappeared in America."

Here then is one of Mr. Tomkin's major premises shown to be absolutely untrue. In like fashion his other arguments could be dealt with. Let us pro-

ceed further with some of his arguments. He says:

"Now, we claim that vivisection tends to weaken character. It dulls the sensibilities to the pain of other. It kills the compassion which instinctively springs up when we see suffering even in an animal. It hardens the ear to the creature's cries and makes the agony of an inferior of little moment if it interferes with our greater aim of securing victory over disease for the possible welfare of the human race. All this means inevitably a loss of the finest powers we possess, those powers which bring us into the realm of sympathy."

We may well pause at this moment to ask whether the Rev. Mr. Tomkins means to have us infer that we who are physicians and have found it necessary at times to experiment upon animals are really any more cruel and have less character than the gentlemen of his own profession, and whether we have lost the "finest powers we possess, those powers which bring us into the realm of sympathy."

For him to make such a statement, if he believes it, is a gross slander to the medical profession, the calling of which is fully as sacred as his own

We deny that physicians have less true character or are one whit more cruel than ministers, and we boldly make the counter statement that we medical men, if anything, are more sensitive to pain and more sympathetic than those who have not had our training. For we who deal with the sick and suffering and injured know what pain is and can appreciate its tortures, and there are few of us, indeed, who when we enter sick rooms in which pain is present, do not find it hard to restrain ourselves from giving immediate relief,

even when we know such relief of pain would surely bring disaster to the ultimate health or the life of the patient.

Mr. Tomkins goes on and concludes one of his paragraphs thus:

"And my vivisection friends will acknowledge that a wild torturing of animals, unrestrained and unrebuked, would surely bring disaster to the race."

Of course we would, but we ask, who wishes to indulge in a wild torturing of animals, unrestrained and unrebuked? Where is the proof of such "wild torturing" except in the imaginations and perverted mentality of certain untruthful anti-vivisectionists?

Is Mr. Tomkins so utterly ignorant of modern medical teaching that he imagines that wild torturing of animals is allowed in any well-regulated medical institution?

He seems to think that all experimentations upon living animals is done without anesthesia, whereas, as a matter of fact, there is precious little, virtually an almost inconsequential part of such experimental work done without anesthesia.

He deals next with the torture of animals, and like his statement regarding mortality, this torture of which he speaks is founded either upon his own ignorance or in his own imagination.

Medical men today do not torture animals, and it is time for the Rev. Mr. Tomkins to wake up and to learn the truth before he utters untruths, because with a man of intellectuality and position, a statement of untruth, even when founded upon ignorance, places the person who makes the statements in a most unenviable position.

His second point, he states, "is of equal importance, namely, the responsi-

bility of the stronger as regards the weak. Vivisection, he claims, takes the weaker by the hand of might and cruelly crushes him; and on the plea of working mercy, it sacrifices mercy, and thereby tends to defeat the law of progress, and to lower intelligence until it becomes nothing more than intellectual ferocity." He continues further, after thus relieving himself of the flow of words, by stating:

"It is aside from the question to cite the use of animals for food. That is not a sacrifice of the weaker for the stronger, but the support of life by means which God has provided. If we ate living creatures or sucked their blood it would be another matter. It is aside from the question, too, to say that we kill dangerous animals and destroy noxious insects, thus displaying brutal power, for the law of self-preservation cannot be derided. The truth is simply this: That to experiment upon living animals is to exalt power to the destructive point and to make man a despot.

"But suppose a great dragon visited a city in mythical fashion, and claims, as a way of escape for the citizens, that he should have given to daily, as his portion, one thousand horses and one thousand sheep and one thousand oxen; would not their sacrifice be justified that man might be saved? And what is disease but a brutal dragon demanding daily the lives of myriads? Yes, such a sacrifice would be justifiable. But if the dragon demanded as his charge for ransom that one thousand horses should be mutilated daily, first a leg cut off and then an eye taken out, etc., then it were far better for the whole city to be consumed by the dragon than that the people should live with mercy sacrificed, the stronger free through the continual cruelty borne by the weaker."

These last quotations are certainly interesting examples of inconsistent reasoning. How he justifies the killing of animals for food in the face of what



his co-faddists, the vegetarians, argue, is beyond us. He virtually acknowledges that the killing of a certain number of horses, sheep and oxen, to appease his mythical dragon, would be justifiable, and then goes on to say that the vivisection experimentation is not a true analogy because of the consistent and persistent mutilation and torture which the unfortunate animals would be put to. Which statement, or conclusion, we can deny, since all who know anything at all concerning vivisection experimentation know that under anesthesia there is little or no torture.

He states that the use of animals for food is justified because they are means provided for the *support* of life, and justifies the destruction of dangerous animals and noxious insects. What a pity that his lack of training in biology prevents him from carrying his thought to its logical sequence by justifying as well the support and the preservation of human life from dangerous germs; the life history of which germs has been largely demonstrated by experiments on animals, which inoculation experiments are virtually without pain, certainly without cruelty.

The last principle which he advances to claim that vivisection violates, is the principle that all life is sacred. In his argument he thus writes:

"It may be right to kill animals quickly to obtain what man needs for his health; but to torture a conscious creature for hours or days, and that upon a theory of a possibility, is to deny the holiness of that creature's life, to shut the eyes to God's presence and power, to count the beating of the heart and the breathing of the lungs as nothing more than the man-made mechanism of the watch.

"It is said that one of our best Philadelphia surgeons, now dead, never went to operate upon a patient without first praying to God. Can we imagine a vivisector praying to God before he straps fast the dog which he is to hold in conscious torture for hours or days?"

The above needs little comment except that all intelligent men will be united, we believe, in holding that praying to God would avail little if the said Philadelphia surgeon had not observed the principles of asepsis, the value of which were largely demonstrated upon experimentation upon animals. The last sentence is another flight of the imagination, because no vivisectionist worthy of the name would keep a dog in conscious torture for hours or days, unless some great fact were at stake. And certainly we know that experiments of a nature requiring torture are never carried on in reputable medical colleges for the mere sake of demonstrating before students.

Mr. Tomkins proceeds in similar fashion to the close of his article.

And yet, as he stated in the beginning of his paper, this question is a very live one. It is a live question in the same sense that a number of other manifestations of mental aberration that are identified at the present day with sentimentalism and religion are live or real. To go into a discussion of the reason for this superncial thinking by so large a number of our seemingly intelligent fellow-countrymen who ought to know better, would take too much time.

It is well for us to appreciate, however, that even here in Southern California we have this type of well-meaning citizens. For the executive officer

of the Los Angeles Society for the Prevention of Cruelty to Animals, according to newspaper reports, contends that no such disease as hydrophobia exists, and this in the face of the recent sad death of the son of one of our foremost citizens.

So, too, we have an organization which meets at the Chamber of Commerce called the California Anti-Vivisection Society, and notices of which meetings appear with considerable frequency in our newspapers.

It is a peculiar thing that when a group of faddists and sentimentalists get hold of a line of thought, of which anti-vivisection is a type, their enthusiasm recognizes no obstacles, and that they work unceasingly for those things which their ego makes them believe they were divinely selected to expound. And this, too, with very little recognition, divine or otherwise, regarding the distinctions between truth and falsehood.

The moral of all this is that it will be somewhat of a surprise if the next session of the State Legislature does not see some sort of an anti-vivisection bill introduced. And further that unless the medical profession be aroused in regard to the matter, and the persistent and insistent misrepresentation of facts by anti-vivisectionists be refuted, these sentimentalists (to be charitable) will have a fair chance to bring about an enactment of some such a statute, just as it has been possible for anti-vaccinationists in California to put through an anti-vaccination measure in the last two Legislatures of California.

All of which goes to show the great importance of the medical profession

doing its share in the education of the public concerning health and associated matters, in order that the ignorant and malicious misrepresentation of fact by incompetent and otherwise demented persons may be properly counteracted.  
K.

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### HYDROPHOBIA—CHRISTIAN SCIENCE.

In this number of the *PRACTITIONER* is printed the report of a classical case of Rabies which recently occurred in Los Angeles, also a most interesting discussion of the same disease by an Arizona colleague.

Some months ago the Health Officer of Pasadena, Dr. Black, secured a muzzling ordinance for dogs, because of an epidemic of rabies among the canine population of that city. The Health Officer of Los Angeles, Dr. Powers, made a like effort, the ordinance was passed, but such a hue and cry was raised against it that it was promptly repealed.

Among the most strenuous shouters against the ordinance was a member of the local Society for the Prevention of Cruelty to Animals.

In the meantime, the son of a prominent citizen is bitten and infected and dies a most distressing death from rabies. The *PRACTITIONER*, in this issue, reports this case.

What stand do the anti-hydrophobia partisans now take?

As is to be expected, they still cling to the ideas which their dense ignorance allows them to form and still contend there is no such disease!

What a spectacle this is, when laymen with a minimum of education and probably less of understanding would

speak dogmatically and authoritatively upon subjects of which they know little or nothing. Their presumption could be no greater if with no knowledge of astronomy or mathematics, they attempted to deny the scientific data and observations of Professor Hale and his associate astronomers on Mount Wilson.

Truly, "where ignorance is bliss, 'tis folly to be wise."

Only in this particular instance, the life of a young boy was made to pay the forfeit of their blatant ignorance and vaporings.

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To pass now to another subject, we commend to our readers the perusal of the synopsis of Mr. Cantrell's lecture on "Science and Christian Science" which is given in this number.

With our fellow-citizens to whom Christian Science stands as a religion we have no quarrel, so long as their beliefs and modes of living have to do with their own and their fellow-citizens' spiritual lives.

Whatever quarrel we have or criticism we make of Christian Science, has to do with those of its activities which make it step beyond the moral and spiritual into the material environments of human beings, which have lead it to deny those facts, and particularly those material facts associated with the spread of disease, which science has discovered at such vast expense of labor and conscientious effort.

We object only to the illogical and presumptuous philosophy which tells us medical men that the gross and microscopic manifestations of disease which have been so accurately described in the past, and which we today see so con-

stantly manifested, not only among human beings in the sick room, the hospital and the dead house, but in the lower animals as well, are non-existent except as our sin or wickedness produces a state of mind conducive to their existence.

These may not be just the proper words to connote the argumentative philosophy expounded by certain "Science Healers" (who with no scientific education, make "diagnoses" and give "treatments" [nearly always for a "consideration"] but the words themselves will do to express our disbelief in such a mode of philosophy.

Fortunately, the good and true in Christian Science will live and that which is in violation of the truth will in good time die. With the religious aspect of the mode of thinking of this faith, particularly in so far as it gives hope and comfort to mentally or otherwise worn-out persons, no one can quarrel.

Nor with its unscientific statements about physical diseases would we medical men quarrel to any great extent. Time will put all these things in their proper places. Just as Christian Science has come into the limelight in an amazingly short space of time, so will its false philosophies about disease rapidly pass into oblivion.

For we know that while most of us go through life often for years without pain or disease, there usually cometh a time when we transgress the laws of our physical environments, or when other physical forces like infectious diseases enter into our physical lives, and that then, according to the severity of our pain and distress, or malfunction of our



physical bodies, we will be quite willing to acknowledge the existence of the pain and of the physical—mind you, not mental—conditions which are almost entirely responsible for such pain.

All of which means that in due time many of the present followers of Christian Science will be attacked by one or more healthy attacks of physical stomachache or something worse or more serious, and that after a few such experiences, they will get into line with the very material outer world which surrounds them, even though they still cling to those mental, moral and spiritual philosophies of Christian Science in which they may have found comfort and hope.

But while all this is going on, medical men, better educated and trained than ever before, and as conscientious, God-fearing and as altruistic as in the years gone by, will quietly, patiently and yet most energetically be searching for God's truths as he has expressed them in this physical world; to the end that noxious causes and diseases may be eliminated, and the days of man's life on earth bettered and lengthened, and thus indirectly his spiritual self, because of a healthier physical environment and mode of living, made better and gotten into accord with that spiritual after-life which most of us hope exists.

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### SCIENCE OR CHRISTIAN SCIENCE? SHALL WE RETIRE THE PHYSICIAN AND RETAIN THE META-PHYSICIAN?\*

There are two fundamental philosophies before the world today, Materialism and Idealism. Materialism says

that all is matter. It describes the world order as matter, motion and relation. "Give me an atom in unstable equilibrium," says Materialism, "and I can explain the universe." Idealism, on the other hand, says that all is Mind. Matter does not exist. The world is an illusion, a phantasm. It is "such stuff as dreams are made of." Nothing is real but Mind. Now, without arguing these high questions in the abstract, I will simply say that you cannot treat matter as illusion. Practically, you cannot despise and set at naught the testimony of the senses and live. And I am Pragmatist enough to believe that any philosophy of life which is practically impossible is and ever must be intellectually false and absurd.

But there is another form of Idealism, and if some of you should call attention to the fact that we do not know matter in its final analysis, that even in our laboratory experiments it becomes intangible and eludes our grasp—if some of you should say to me that while matter is real it is real because it is a manifestation of Mind, I am willing to give some consideration to your argument. There are difficulties in the way, but I recognize the claims of your philosophy. But before we give ourselves over too hastily to such a generalization, let us consider the fact that whatever matter may be in its final analysis, it is as matter that we know it. As far as we are able to analyze—as far as we really know, we call it matter. When we reach the point where we do not know, we are asked to call it Mind, or something else. But granting that the universe is psychic, and not material—granting

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\*Synopsis of a lecture by Edward Adams Centrell, of Los Angeles, before the Los Angeles County Medical Association, February 18, 1910.

that matter is a manifestation of Infinite Mind, where, then, do we touch this Infinite Mind more vitally than in material things? How can we know this Infinite Mind more definitely than through matter and its laws? Even here, as from the materialistic point of view, to despise the material world means to despise the most tangible reality that we can possibly know. To deny the reality of the material world, to despise its relations, to shun its activities, to violate its laws means to forfeit the very health we crave. It not only means to forfeit health, but it means to forfeit all sanity and progress as well.

Leaving, then, the problem of the ultimate of things, which is the great mystery of Science and Philosophy and, by its own confessions, of Religion itself—leaving these abstractions, there is an argument for the world of the concrete, and our healthy touch with it, which I want to urge tonight. The argument is as follows:

All life comes to us in materiality.

All life-forms have developed in response to material environment.

Every idea in the thought of the race was first an image of some material thing, or was suggested by material things.

You can't think spirit. You can think sublimated or attenuated matter, but it is matter just the same. Try it and see.

Every step in human progress has been taken, either in connection with some mechanical invention, or some scientific discovery.

The marked ascetic or metaphysical tendencies in any age are pathological,

being the inevitable revulsions of tired or sick life from the harsh aspects of its physical environment.

There are great tasks to be performed. Deserts are to be reclaimed, swamps are to be drained, mountains are to be reforested, cities are to be cleaned, diseases are to be stamped out, wealth is to be created, and life—here in the flesh, here and now—is to be made strong and glad. To do this we need the scientist, the mechanic, the worker with the application of labor to material things, and not the metaphysician with occult formulae obscuring the world of sense. In this direction and this only, it seems to me, all progress lies.

#### AN INTERESTING PROGRAM.

The attention of every member of the Arizona Medical Association is directed to the program of the coming meeting of this Association which appears on another page of this journal.

The oration on Internal Medicine will be delivered by the Assistant Professor of Medicine of Cooper Medical College, San Francisco, one of the best known of the younger medical men of California.

The oration on Surgery will be by the Professor of Gynecology and Surgery of the Los Angeles Medical Department of the University of California, a man with a wide reputation as a very capable surgeon and successful teacher.

The oration on State Medicine will be by the Secretary of the State Board of Health of Illinois, who has for a number of years proved his efficiency as a State health officer, and who is a

recognized authority on all matters pertaining to Sanitary Science.

Our local men will present many interesting subjects, among others, Hook Worm Disease and Pellagra, both of which are attracting considerable attention in the medical world today. Papers and discussions on subjects referring to the economic and business

side of the practice of medicine will occupy a fair proportion of the time of the Association.

The meeting promises to be an interesting and profitable one and will be well worth the attendance of every medical man in Arizona.

J. W. F.

Prescott, Arizona, March 4, 1910.

## EDITORIAL NOTES

Dr. William H. Sargent, formerly of Mayer, has opened offices in Phoenix, Arizona.

Dr. E. C. Buell of Los Angeles leaves March 22 for a trip around the world.

Dr. C. L. Downing has been appointed County Physician at Carpinteria, Santa Barbara County.

Dr. Elmore E. Pascoe has been elected City Poor Physician by the Los Angeles board of health.

The people of Lancaster, Los Angeles County, are without a physician, says the editor of the Gazette.

Dr. Albert W. Moore of Los Angeles is the subject of congratulations for the happy outcome of a malpractice suit.

Dr. Standlee of Brawley has purchased the interests of Dr. Bumgarner in Imperial and located in the latter city.

Dr. S. C. Bryant of Omaha was recently discovered lunching with Dr. Norman Bridge at the California Club, Los Angeles.

Dr. J. H. Lacey, who has been the leading physician in Solomonville, Arizona, for sixteen years, has located in Globe.

Dr. John E. Bacon recently left Tombstone for New York, whence he

will sail for Europe for several months' post-graduate work.

Dr. W. A. Edwards of Los Angeles made a pleasure trip to the Grand Canyon recently with his brother-in-law, H. C. Taft of New York.

Mr. Kanouse, the former manager of the Pottenger Sanatorium, became general business manager of the El Reposo Sanatorium March 1st.

Dr. George F. Bovard, president of the University of Southern California, has just completed a year as president of the Los Angeles Celtic Club.

The *Lompoc Journal* says that Dr. H. I. Johnson of Santa Maria is a candidate for Coroner and Public Administrator of Santa Barbara County.

"The Talent Workers Hospital" is the name of a proposed hospital in San Diego. Mrs. O. J. Kendall, wife of Dr. Kendall, is president of the Society.

Dr. Titian J. Coffey, President of the Los Angeles Housing Commission, has been elected a director of the National Housing Commission at the New York meeting.

Dr. B. F. Church, now of Redlands, is recovering from the shock and injury of two fractured ribs caused by the kick of a vicious and indiscriminating horse.



Dr. E. Payne Palmer of Phoenix, after a year's post graduate work in Rochester, Minnesota, and New York City, has gone to Vienna for a year's further study.

The daily papers announce that Dr. Geo. M. Martyn of Los Angeles will spend \$100,000.00 on sanatorium buildings on the tract of land he has purchased in the foothills near Pasadena.

Dr. and Mrs. C. Leroy Lowman are located in their new home at 425 West Twenty-second St., Los Angeles. Mrs. Lowman was until very recently Miss Elizabeth Arnold of Galesburg, Ill.

Dr. D. W. White, medical director of the Phoenix Indian school and rated by the Indian bureau as an expert on trachoma, has been ordered to Darlington, Okla., to examine the pupils of that school for trachoma.

Dr. John L. McDaniel has recently located in Los Angeles with his residence in Strawberry Park suburb and his office in the Wright and Calender building, corner of Fourth and Hill Streets.

Dr. Carey K. Fleming of Denver was being entertained by old friends in Los Angeles during the last weeks of February. Dr. Fleming graduated from the Northwestern University of Chicago, class of 1886.

Dr. C. R. K. Swetman and Miss Wilhelmina Gossman were married in Prescott, Arizona, Wednesday, February 16. Dr. and Mrs. Swetman will make their home in Poland, where the doctor is resident physician of the Poland Mining Company.

Dr. Chas. P. Thomas of Spokane was recently the guest of honor at the California Club, Los Angeles, at a luncheon given by Dr. W. W. Beckett. Dr. Thomas graduated from the Medical Department of the University of Oregon, class of 1888.

The recent lecture by Mr. Edward A. Cantrell of Los Angeles on "Science or Christian Science," a synopsis of which appears in this *PRACTITIONER*, was a most scholarly and entertaining address. It elicited a full discussion and was most cordially approved by the members present, and a vote of thanks was tendered the speaker by the Association.

Dr. E. Clarence Moore of Los Angeles has returned home and resumed his professional work in association with his father, Dr. M. L. Moore. During his year's absence Dr. Moore has been assistant to the Mayos, thus giving him remarkable opportunities for experience and observation.

At a meeting of the Yavapai County Medical Society held Monday evening, February 28, A. J. Murietta of Jerome, the Vice-President of the Society, was named President for the ensuing year to succeed R. W. Graham, who has removed from the county. W. I. Linn of Prescott was elected to the Vice-Presidency.

The genuine lover of books has a real esteem for a book catalogue.

There are pictures and quotations and commendations that call up happy hours of the past and of the future. The thirteenth edition of the illustrated catalogue of the W. B. Saunders Company of Philadelphia is before us and is full of interest. It contains 84 pages and will be sent to any physician on request.

The officers of the Santa Cruz County, Arizona, Medical Society elected at the last annual meeting, were as follows: President, Paul R. Doran, Patagonia; Vice President, V. A. Smelker, Nogales; Secretary and Treasurer, A. C. Kingsley, Nogales; Censor, H. W. Purdy, Nogales; Delegate, A. L. Gustetter, Nogales.

Dr. Horace G. Wetherill of Denver has been spending his winter vacation

in Los Angeles and was to be seen at the California Hospital and the California Club. Dr. Wm. A. Edwards and Dr. Andrew Stewart Lobingier each gave luncheons at this well known club in honor of Dr. Wetherill. The doctor looks about forty and graduated from the University of Pennsylvania, class of 1878.

Dr. W. R. Livingston of Oxnard has returned from a three months' trip in Mexico. The doctor went to Mazatlan first and afterward to Acaponeta, in the territory of Tepic, where Hon. T. R. Bard and associates own a total of 76,000 acres, 10,000 acres of which are under cultivation. The doctor also purchased property there, remaining a month in his investigations of the country.

Dr. Walter B. Purcell of Tucson was instantly killed by the overturning of his automobile, about twenty miles from town, on the evening of March 1. Dr. Purcell practiced in Tucson for a number of years, and was very well and favorably known throughout the Territory. He was a very enthusiastic automobilist and was one of the first to make the overland trip from Los Angeles to Arizona by automobile.

Dr. Ray Lyman Wilbur of the Stanford University Faculty sends us the following reprints: (1) Some Points on the Symptoms and Localization of Intestinal Obstruction due to Carcinomata, with Report on Four Cases; (2) The Treatment of Muco-Membranous Colitis from the Standpoint of its Bacterial Origin; (3) Routine Treatment and Complications of Typhoid Fever; (4) An Unusual Case of Antitoxin Rash.

By the new advertisement of the Chicago *Policlinic* our readers will learn that Dr. M. L. Harris and his coadjutors are giving the post-graduate with limited time just what he needs. Chicago is drawing post-grad-

uate students from the Alleghany mountains to the Pacific Coast.

The population of Great Britain in 1851 was 27,000,000. In 1901 it reached 41,500,000, showing a gain of 51 per cent in a half century.

The Nye County, Nevada, Medical Society held a meeting in Tonopah February 23 and elected the following officers for the ensuing year: President, Dr. Sidney Clark; Vice-President, Dr. J. R. Cunningham; Secretary and Treasurer, Dr. C. J. Richards; Board of Control, Drs. W. W. Ashley, R. J. Mapes and P. D. McLeod. Drs. F. B. Bowen of Rhyolite and C. E. Bullette of Pioneer are the two members from the southern section of the county.

Dr. C. E. Zerfing was on February 15 elected Police Surgeon by the Los Angeles City Council. Dr. Zerfing has been a resident of Los Angeles since 1905. He is a graduate of the University of Pennsylvania, and spent two years in post-graduate work in the hospitals of Munich and Berlin. Following his graduation in 1895 he served as resident physician of the Philadelphia City Hospital. He is now assistant professor of medicine in the College of Physicians and Surgeons of the University of Southern California.

The Manhattan Private Hospital for the treatment of drug addiction by the Lambert method has been organized in Los Angeles.

(1) The Outlining of Normal Organs and the Diagnosticating of Diseased Conditions of the Pleura and Lungs by Means of Palpation; (2) A new Physical Sign, Probably a Skin Reflex, Whereby Solid Organs, Such as the Heart and the Liver and Inflammatory Processes Found in the Lungs and Pleura May Be Detected by Palpation; (3) The Effect of Tuberculosis, are reprints by Dr. F. M. Pottenger.

Every once in a while some promoter goes around trying to sell stock in some proposed new hospital. He tells fairy tales about hospitals paying 60 and 80 per cent per annum. The recent report of the Pasadena Hospital for 1909 gives a good idea of the expense of maintaining a hospital. That hospital during the year treated 1233 patients, a total of 17079 days, for which the expense was approximately \$49,583. This makes the cost per patient per day \$2.93. This is about the cost to maintain a hospital at present prices of supplies where the patients are in separate rooms.

The Central Hospital, El Centro, Imperial County, has recently been considerably enlarged. It has as its director, Dr. Virgil McCombs, who is physician in charge; Dr. H. C. Richter of Calexico; Dr. J. L. Cooke, of Brawley; Dr. F. W. Peterson, of El Centro; Dr. George M. Bumgarner, of Imperial and Dr. E. R. Brooks, of Holtville.

The institution now has thirty beds and twenty-six of them are occupied. An average of twenty patients has been cared for at Central Hospital for the past six months. Most of the cases are surgical. Three nurses are employed.

Dr. Thomas B. Mansfield, age 65 years, died in Sawtelle, California, February 11th as the result of blood poisoning, with which he was infected more than a year ago while attending a wounded patient at Coarse Gold, Cal. Infection was conveyed through a small cut in his finger.

When the poison first manifested itself, the doctor's symptoms were peculiar and painful. His finger nails and toe nails fell off, and later he was stricken with paralysis. For several months he had been bedridden.

Dr. Mansfield was a native of Ohio. In the course of 40 years he

practiced in Sac City, Ia., Denver, Salt Lake City, Omaha and Dallas.

The following is the staff for 1910 of the Pasadena Hospital: H. B. Stehman, Norman Bridge, J. H. McBride, Stanley P. Black, J. J. Bleecker, F. F. Rowland, Henry Sherry, H. H. Sherk, C. D. Lockwood, F. C. E. Mattison, Eliot Alden, A. D. S. McCoy, E. G. Mattison, Charles Lee King, A. T. Newcomb, T. J. Orbison, George Deacon, A. J. Crance, J. D. Condit, R. C. Olmsted, E. H. McMillan, Fordyce Grinnell, William V. Cook, C. E. Campbell, S. J. Matison, Mary E. Hagadorn, George E. Abbott, W. E. Nichols, A. J. Fiske, H. W. Murray, J. M. Wilson, R. Newcomb, W. H. Roberts, J. Ross Reed, W. D. Dilworth, William Zuill, C. A. Briggs, E. J. Claypole, Carolyn McQuiston, Josephine Jackson and Adelbert Fenyes. The staff proposes to establish a free clinic for poor school children.

Dr. Thomas Coates Stockton, the first white physician to locate in San Diego, died in that city March 1 as the result of a paralytic stroke. Dr. Stockton leaves a widow, Minnie Grey Slade Stockton, with whom he was united in marriage in the little Episcopal church near the barracks in the pioneer days. They were the first couple to be married in the church. Thomas Coates Stockton, son of Charles and Alice Coates Stockton, was born April 3, 1837, at Smith Creek, New Brunswick, Canada. He was the youngest of fifteen children, eleven sons and four daughters. He lived on the homestead farm and attended the local schools until 1858, when he went to the training and model school in St. John, N. B. In October, 1860, he was granted a license to teach, and for eighteen months taught a parish school at Butternut Ridge. He then attended Mount Allison College for two years, after which he began the study of medicine at St.



John, N. B. After this he attended the Harvard University Medical School and the Bellevue Hospital Medical College in New York, from which he graduated in 1866. He then opened an office in partnership with a classmate in

New York City, where he practiced for several years. He then returned to St. John and in 1869 removed to San Diego, Cal. During his useful life the doctor has filled numerous honorary, civil and professional positions.

## OF GENERAL INTEREST

### PROGRAM ARIZONA MEDICAL ASSOCIATION.

The nineteenth annual session of the Arizona Medical Association will be held at Phoenix, April 20-21, 1910. The provisional program is as follows:

#### TUESDAY EVENING, APRIL 19TH.

Meeting of the Council at 8 p.m., in the office of O. E. Plath.

#### WEDNESDAY MORNING, APRIL 20TH.

8:30 a.m.—Registration at Secretary's desk.

9:00 a.m.—Meeting of House of Delegates.

- (a) Reading of minutes.
- (b) Secretary's report.
- (c) Treasurer's report.
- (d) Appointing of committees.

9:30 a.m.—General Meeting.

- (1) Address of welcome.
- (2) Response.

(3) Reading minutes of last general meeting.

(4) President's Address, R. N. Looney, Prescott.

(5) The Annual Essay, W. Warner Watkins, Phoenix.

#### INTERMISSION.

11:15 a.m.—Oration on Medicine, J. Wilson Shiels, San Francisco.

(2) Ankylostomiasis, Cause, Symptoms and Treatment, Capt. C. L. Cole, Whipple Barracks.

(3) Subject not received, Ancil Martin, Phoenix.

(4) Demonstration of a Few Rare Cases of Insanity, J. A. Ketcherside, Phoenix.

#### WEDNESDAY AFTERNOON, APRIL 20TH.

3:00 p.m.—Oration on Surgery, W. W. Beckett, Los Angeles.

(2) Hemorrhage from Middle Meningeal Artery, with Report of Case, Ralph F. Palmer, Mesa.

(3) Complications in Obstetrics, With Reports of Cases, Otto E. Plath, Phoenix.

#### INTERMISSION.

4:45 p.m.—Some Practical Suggestions Regarding Testimony of Medical Experts, Paul Burks, Esq., Prescott.

(2) Brains, George D. Troutman, Tucson.

(3) Mummified Foetus with Presentation of Specimen, Ralph L. Alexander, Tempe.

6:30 p.m.—Meeting of the Council.

#### THURSDAY MORNING, APRIL 21ST.

8:30 a.m.—Meeting of House of Delegates.

(1) Reports of Standing Committees.

(2) Reports of Special Committees.

(3) New Business.

9:00 a.m.—Susceptibility to Infection and Contagious Diseases of Mixed Blood in the Indian, with cases; Roy Thomas, Phoenix.

(2) Acute Odema of the Lungs, with Report of Three Cases, C. E. Yount, Prescott.

(3) Pellagra—Pathology, Symptoms, Treatment, with Lantern-slide Demonstration, Francis H. Redewill, Phoenix.

#### INTERMISSION.

11:00 a.m.—Oration on State Medicine, James A. Egan, Springfield, Ill.

(2) Public Health and Legislation, E. S. Godfrey, Jr., Phoenix.

(3) The Justification of Contract Practice, W. D. Cutter, Bisbee.

(4) Medical Men and Their Business Methods, John W. Flinn, Prescott.

THURSDAY AFTERNOON.

3:00 p.m.—Open meeting of House of Delegates.

(At this meeting all members of the Association will have the privilege of discussing any question before the House. Only Delegates, however, may make a motion or vote on any question.)

- (1) Election of Officers.
- (2) Report of the Special Committee on Public Health Legislation.
- (3) Appointing of Committees for 1910-11.
- (4) Miscellaneous Business.

ANNOUNCEMENTS.

The annual banquet will be held at the Hotel Adams, on the evening of Wednesday, April 20th.

All railroad lines in Arizona will grant a one and one-fourth fare for the return trip, on the certificate plan, to members and guests of the Association and their families.

On the afternoon of Thursday, April 21st, the Maricopa County Medical Society will take the members of the Association for an automobile ride around the Salt River Valley, The Ostrich Farm, Beet Sugar Factory, Indian School and other points of interest will be visited.

The first annual meeting of the Arizona Association for the Study and Prevention of Tuberculosis will be held on the afternoon and evening of Thursday, April 21. The executive session will convene at 5:30 and a public meeting will be held at 8 o'clock.

## MOLIERE AND THE DOCTORS.\*

BY BRANDER MATTHEWS.

Early in the fall of 1665 Louis XIV again called upon Molière to minister swiftly to his pleasure, and the dramatist responded with a celerity which was extraordinary even for him. In

five days he devised, wrote, rehearsed and produced a comedy-ballet, "L'Amour Medecin," which was acted before the King at Versailles in the middle of September, 1665, and brought out at the Palais Royal a few days later. It was in prose and in three acts, but by omitting the interludes of dancing it could be presented easily as a single act. In this merry trifle improvised hastily at the monarch's desire, Molière returned to the familiar and convenient framework of the comedy-of-masks. The action takes place in the open air in front of the house of Sganarelle.

The plot of the little play is as simple as may be; but however slight in texture it is sufficient for its immediate purpose. Molière himself appeared as Sganarelle, not here the shrewd servant of "Don Juan," but the more narrow-minded and obstinate type seen earlier in the "Ecole des Maris." He is now a widower with one daughter, Lucinde (probably impersonated by Mlle. Molière). The father wishes to keep his daughter for himself, but the daughter desires to be married to a young man who has sought her hand, Clitandre (acted by La Grange). She pretends to be ill; and Sganarelle seeks advice, first from various friends, and finally from four physicians, called in consultation upon her case. The doctors disagree, and two of them, after proposing radically different treatments, quarrel violently. A little later the maid brings in Clitandre disguised as a physician. The young lover deceives the father into consenting to his daughter's marriage, Sganarelle supposing that this is only a pretense, likely to arouse Lucinde out of her melancholy. When he discovers that she is really wedded to Clitandre the play is over.

This unpretending little farce, significant only as an example of Molière's fertility and facility, is brisk and lively

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in its movement. It was probably effective enough on the stage when performed by Molière and his comrades; and it is in the theatre that its merits would be most evident. In the preface, wherein the author explained that the piece was written to order at topmost speed, Molière modestly asserted that it contained much which was dependent chiefly on the skill of the performers. And he added a remark characteristic of the professional playwright who has planned his work for the actual theater: "Everyone knows that comedies are written only to be acted."

But the interest of this amusing little piece when it was first performed did not lie in the adroitness of the acting or in the humorous ingenuity of its situations; it resided rather in the four physicians who meet in consultation. To us, in the twentieth century, they seem to be comically contrasted types of the practitioners of medicine of those remote days; but to the Parisian playgoers in the later seventeenth century they were recognizable caricatures of living men, somewhat exaggerated portrayals of four of the leading doctors of the court, each of them endowed with the individual peculiarities of the original. This was an Aristophanic license of personal caricature, which is here without offense or ill-will, for Molière was not attacking the persons or the character of these physicians. He was using them only as the means of showing up the hollowness of the pretensions of the whole medical profession of his own day.

It was in "Don Juan" that Molière had first girded at the practitioners of the healing art. When Don Juan and Sganarelle had to disguise themselves, the latter appeared in the flowing robe of a physician, giving his master an occasion for a few biting jibes against the doctors; and this shocked Sgana-

relle, horrified to find that Don Juan, a sceptic in religion, was also a sceptic in medicine. It was in "L'Amour Medecin" that Molière first declared open war against the faculty, that guerilla warfare which he was to keep up for the rest of his life, returning to the attack in play after play, as though he was as bitter against the doctors as he was against the pedants and the hypocrites. The explanation of this hostility is to be found in the fact that Molière held the physicians of his time to be both pedants and hypocrites. For affectation in all its phases, for pretenders of every kind, for humbugs of all sorts, Molière had a keen eye and a hearty detestation. On them and on them only he was ever swift to pour the vials of his wrath; and he was never moved to assault unless his hostile contempt was awakened by his acute instinct for a sham.

In every period there are certain callings, or professions, as the case may be, which the average man of that epoch delights in abusing; and we are not today swifter to make fun of the plumber than the people of the Middle Ages were to crack jokes at the expense of the miller. The source of the irritation which thus seeks vent in humorous thrusts is the same; it is the result of our knowledge of the fact that we cannot control the accounts rendered by the miller and by the plumber. We must accept them as they are rendered; and the only revenge open to us is to take away the character of the craftsman who has us at his mercy and whom we cannot help suspecting. In all ages, or at least ever since law and medicine were first recognized as professions, the average man has been prone to resent the air of mystery assumed by the lawyers and the physicians, and to be annoyed by their professional self-assertion. Hosts of merry



jesters, directed at the conceit of the members of these two professions, have been handed down from century to century, or are born again by spontaneous generation.

Molière's immediate predecessors in the comic drama, the devisers of the comedy-of-masks, had drawn unhesitatingly from the inexhaustible arsenal of missiles directed against the two professions; and in attacking the practitioners of medicine Molière was only doing again what the Italians had done before him. And here the question imposes itself, Why did he neglect the lawyers to concentrate his fire on the doctors? The answer is not far to seek; the lawyers, whatever faults they might have, were not imposters, and Molière's resentment is always against an affectation or a pretense. The law might lend itself to chicanery, and to annoying delay and ultimate injustice; its procedure might be complicated and vexatious, but the lawyers did not pretend to be in possession of mysterious secrets, and they did their work in the open for all men to see. The physicians made the most exalted claims for their art and they demanded to be taken on faith, however weakly their practice might fall below their preaching. Ordinarily the lawyer deals only with losses of money; and he does not lay hands upon the person, nor require us to submit our minds to his that he may control our bodies. And this is what the physician does now, always has done, and must always do. This is, therefore, why the practice of the law, sharply as we may dwell on its defects, does not come home to us as closely as the practice of medicine, which must ever be a matter of life and death.

But there were also special reasons peculiar to his own period why Molière was moved to pour out his contempt on the physicians. The reign of Louis

XIV marks what is perhaps the lowest point in the history of medicine in France. The men who represented medicine were narrow and bigoted conservatives, accepting blindly all that they had inherited from the ancients and refusing resolutely to depart from the practices of their forefathers. They rejected every new discovery without investigation—scouting it scornfully. They were determined to maintain their ancient landmarks. They believed that medicine was an exact science, that they were the custodians of all its mysteries; and that what they did not know was not knowledge. They held fast to a body of doctrine, a purely theoretic conception of their art, which was almost as closely reasoned and as compactly co-ordinated as was the contemporary doctrine of Calvin in matters of religion. Behind this they intrenched themselves, and in defense of this they were prepared to die in the last ditch—and to let their patients die also.

In Paris the Faculty of Medicine was a close corporation, bound together by the loyal traditions of a trade-gild and possessing a solidarity more substantial than that of any modern trades-union. There were only about a hundred physicians in the capital and not more than four were admitted in any one year. The cost of a medical education was onerous, and therefore the profession was recruited from the well-to-do. At the examinations special privileges were granted to the sons of physicians; and the profession thus tended to be hereditary with all the obvious disadvantages of persistent inbreeding. The training of the youthful aspirant to the doctorate was philosophic not to say scholastic, and the questions propounded to the candidate were often foolish. Medicine was not considered as an art, necessarily more or less empirical, but rather

as an exact science, lending itself abundantly to scholarly disputation. The doctors were generally more interested in medicine as a code of tradition, and in their own strict obedience to its precepts and precedents than they were in the art of healing and in the condition of the individual patient. They were indeed far more conservative than the ancients whom they bound themselves to follow; and the oath of Hippocrates had a large liberality which was lacking in the pledge subscribed by the young doctor in Paris, which was little more than a promise ever to defend sturdily the rights of the Faculty itself.

The doctors of the capital rejected the circulation of the blood, so we are told by one historian of medicine in France, because this came from England, and also the use of antimony and of quinine, because one came from Montpellier and the other from America. It refused to have anything whatever to do with surgery, which it despised; and students of medicine were not allowed to dissect. The physicians held surgery to be a mere manual art, unworthy of a learned profession. Any physician who had ever practised surgery was required to promise that he would never again descend to this craft, fit only for an artisan. There were numberless other absurdities accepted by nearly all the physicians of the time. Bleeding and purging were, of course, the foremost of remedies, since they were necessary to rid the body of its "humors." Patients took medicine or were purged not only for any ailment they had, but also for the ailments they might have in the future, merely as a precautionary measure. And to these ridiculous practices everyone who consulted a physician had to submit, including the King himself.

Since these absurdities and artificialities were patent to all, Molière could

not help seeing them. He was moved to mirthful indignation by the empty pretensions of the physicians. He might not know better than any other layman what ought to be done; but he was too sharp-sighted and keen-witted not to see that these things ought not to be done. Here, as elsewhere, he had an abiding faith in the power of nature to take care of itself and to work out its own salvation. This led him to abhor the endless purging, bleeding, and drugging which every physician then resorted to. It led him also to anticipate the modern practice of letting a disease run its course. In "*L'Amour Medecin*" the nimble-tongued Lisette tells how the household cat has recovered from a fall into the street, after lying three days without eating and without moving a paw; and then she adds that there are no cat-physicians, luckily for the cat, or it would have died from their purgings and bleedings. A similar attitude is taken by other characters in the later plays, in which Molière returned again to the attack.

Molière had had thorough instruction in the official philosophy, as the Jesuits imparted it to their students; and he had been made familiar with a more modern school of thought by Gassendi. He was by training fitted to understand the philosophic foundation on which were raised all the theories promulgated by the Faculty of Medicine; and his objection to the practices of the French physicians of his time seems to be due not more to the absurdity of these practices than to the absurdity of the philosophy which justified them.

He did his own thinking in his own fashion; and he was no blind worshipper of authority. He was not overawed by the revered name of Hippocrates, outside of which there was no health. Even the citing of Aristotle

was not to him conclusive if his own eyes revealed to him an experience not obviously in accord with the saying of the great Greek. It is not without significance that he makes one of his characters declare that "the ancients are the ancients, and we are the men of today." Molière was no iconoclast, no violent revolutionary, no rejector of tradition solely because it was an inheritance. On the other hand, he was ready to prove all things so that he might hold fast that which was good. So it was that he detested vain theorizing and the building up of formulas and of classifications into rigid systems, false to the facts of life as he saw them with his own eyes. The medicine of his day was a rigid system of this sort; and the moment he perceived this clearly he could not help exposing it.

But his detestation of the contemporary perversions of the doctrines of Hippocrates and of Galen did not lead him to misrepresent them. On the contrary, he strove to reproduce them with the most conscientious accuracy. If the discussions of his doctors, their dissertations, their disputations seem to us almost inconceivably ridiculous, this is because Molière had assimilated the theory that sustained them and had absorbed the vocabulary in which they were habitually set forth. To bring forth abundant laughter all that Molière had to do was to show the doctors in action, to isolate this principle and that, and to set this forth in their own jargon, with only the heightening necessary to make it clear. The result is inevitably laughable because of the fundamental absurdity of the originals thus faithfully portrayed.

The scholars who have investigated the history of medicine in France are united in their admiration for the fidelity with which Molière has dealt with the doctrines he was denouncing. They

have constant praise for the certainty with which he seized the spirit that animated the French physicians of the seventeenth century, and for the skill with which he caught the very accent of their speech. His was no haphazard criticism; it was rooted in knowledge. The consultation in "*Monsieur de Pourceaugnac*" is declared to be almost a phonographic report in its verisimilitude. Even when the comic dramatist was moved to frank caricature and overt burlesque, as in the ceremony of the "*Malade Imaginaire*," he was only exaggerating more or less what actually took place on similar occasions. His satire, however grotesque it may seem, however broadly humorous, has philosophic truth to sustain it.

Although Molière put into "*L'Amour Medecin*" four figures of fun which his contemporaries recognized as copied from certain of the more prominent physicians of Paris, there was no bitterness of personality in this. It was the whole Faculty he was attacking and the spirit that governed this trade-guild of those who trafficked in medicine. He had no quarrel with any individual doctor; indeed, he was on the best of terms with several practitioners of the healing art—with La Mothe Le Vayer, for one; with Bernier, for another; and with his own doctor, Mauvillain.

The only favor that Molière ever craved from the sovereign was that a vacant canonry might be bestowed on Mauvillain's son. This request he addressed to the King on the joyful day when Louis XIV at last permitted the public performances of "*Tartuffe*." In his appeal he told the monarch that the physician had promised and was ready to bind himself, under oath, to keep his patient alive for thirty years if this boon could be obtained from the King. The petitioner explained that he had not demanded so much, and he would



be satisfied if the doctor merely promised not to kill him. Grimarest has recorded that the King once asked Molière how he got along with his physician, and that the dramatist answered, "Sire, we talk together; he prescribes remedies for me; I do not take them; and I get well."

These talks together were probably the source of Molière's accurate and intimate acquaintance with the principles, the procedure, and the vocabulary of contemporary medicine. Mauvillain was a man of marked individuality, who had had troubles of his own in his youth, but who rose in time to be dean of the Faculty. Ardent defender of the rights of his guild, he seems to have had a sense of humor; and it may be that he took a malicious pleasure in supplying Molière with material for caricaturing other members of the Faculty and even the Faculty itself.

Molière's uncertain health must often have given occasion for these talks with Mauvillain; and although he may have told the King that he did not take the remedies his physician prescribed, it is a fact that when he died he owed a heavy bill to his apothecary. That his health was uncertain is beyond all question. His lungs were weak, and he had a chronic cough, which he even gave as a peculiarity to one of the later characters he wrote for his own acting. He came of a feeble stock; his mother died young and few of her children attained long life. Molière's younger brother died before he did—and he himself was to survive only until he was fifty-one, the immediate cause of his death being the rupture of a blood-vessel in the lungs. Two of his three children died before him; and his only surviving child, a daughter, died at last without leaving issue.

It is only after he became conscious

that his health was failing and that he had to call on physicians for relief, it is only then that he began to make fun of them, after he had had personal experience of the futility of their efforts. Perhaps we may find the exciting cause of his hostility to the contemporary practitioners to alleviate his own ailments and to restore him to strength. A fact it is that he continued his attacks on them to the end of his life, and that the last play he lived to produce, the "Malade Imaginaire," contained the most vigorous of all his assaults, far more searching than the comparatively mild satire of "L'Amour Medecin."—*Scribner's Magazine*, January, 1910.

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#### GOOD FOR DR. ORBISON.

Dr. Thomas J. Orbison, of Pasadena, defendant in a \$20,000 damage suit brought by A. A. Shewmaker of Walnut street, an electric car conductor, won the suit in Judge Conrey's department of the Superior court, Los Angeles, recently. The showing made by the defense was so strong that Judge Conrey refused to hear the statement of Dr. Orbison's attorney, George Adams, saying that it was unnecessary.

The incident on which the suit was based occurred June 23, 1909, at Colorado street and Los Robles avenue, Pasadena, on Shewmaker's car. Dr. Orbison remonstrated with the conductor when he took five pennies from Miss Ida M. Jones in a manner which Dr. Orbison thought was insulting. After some words, Dr. Orbison rose to get off the car, while Shewmaker was standing upon the step, holding onto the gate preparatory to alighting for pulling the switch. Dr. Orbison maintained that as he started to lift the gate to get off,

the conductor stepped backward and fell off. Shewmaker alleged that he was pushed off the steps of the car.

In Judge McDonald's court, a battery charge against Dr. Orbison was sustained, and the case was appealed

to the Superior court. The suit for damages then followed, Shewmaker alleging that a permanent injury was caused by his fall. It occupied but little time when brought up yesterday.

## BOOK REVIEWS

TEXT-BOOK OF MODERN MATERIA MEDICA AND THERAPEUTICS. The New (5th Edition). By A. A. Stevens M.D., Professor of Therapeutics and Clinical Medicine, Woman's Medical College, Philadelphia. Fifth revised, edition. Octavo of 675 pages. Philadelphia and London. W. B. Saunders Company, 1909. Cloth \$3.50 net. W. B. Saunders Company, Philadelphia and London.

This edition is the result of thorough revision. On critical examination it is found that it contains many additions and important modifications, making it a reliable and complete guide to the study of materia medica and therapeutics.

In the arrangement of the volume, that which appeals strongly to the working physician is the classification and grouping of medical agents according to their physiological action. It is evident that such a classification must necessarily be an imperfect one, nevertheless when its limitations are fully recognized, such a classification is the most practical one that can be adopted.

All the most noteworthy editions to the latest pharmacopeia are incorporated in the text, which brings the work thoroughly up to date.

The second section of the volume, "Applied Therapeutics," will, we believe, appear less attractive to the practicing physician than the first section which deals with drugs and their physiological action. The whole field of therapeutics is disposed of in 138 pages, a space entirely inadequate to allow more than an outline of the subject. It is more suitable to the needs of undergraduates in medicine. Since the vol-

ume was primarily intended as a text-book, the section on therapeutics is from such a standpoint quite adequate.

The index is admirably arranged and complete. The names of diseases and symptoms appear in bold type and those of drugs and therapeutic measures in small type, the convenience of which adds much to the working value of the volume.

D. F.

"THE QUEST," by Thomas A. Stoddard, M.D., formerly of Halifax, Nova Scotia, presently of Pueblo, Colorado. Cochrane Publishing Company, Tribune Building, New York. 1909.

This work is instructive and interesting. In the course of the opening chapters of the story the doctor deals some effective blows to Christian Science. In conclusion he asks: "Does the subconscious mind know things that have not been learned by the individual who is in this condition, and in truth things that have not been known to exist at all?"

VITAL ECONOMY OR HOW TO PRESERVE YOUR HEALTH, by John H. Clark, M.D., cloth 50c net. A. Wessels, Newold Publishing Company, 156 Fifth Avenue, New York.

This little volume is designed to be helpful to that class of individuals who have barely enough vital energy to meet the many demands made upon them by modern social conditions.

Common sense is the dominant characteristic pervading the work, and if it were extensively read, it would, without doubt, effectually "set right" many unfortunate semi-invalids who are wor-

shipping at the shrine of some particular fad to attain health, at the exclusion of good sense and physiological principles.

The author's comments on such topics as bathing, fresh air, exercise, stimulants, worry, tea and coffee, etc., are charmingly presented, and are as full of wit as of wisdom.

D. F.

**AMERICAN ILLUSTRATED MEDICAL DICTIONARY.** The New (5th) Revised Edition. Dorland's American Illustrated Medical Dictionary. A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Nursing, and kindred branches; with new and elaborate tables and many handsome illustrations. Fifth Revised Edition. By W. A. Newman Dorland, M.D. Large octavo of 876 pages, with 2000 new terms. Philadelphia and London, W. B. Saunders Company, 1909. Flexible leather. \$1. net; indexed, \$1.50 net.

An attempt to review this standard, comprehensive work would be futile. Since the publication of the fourth edition more than 2000 new terms have been added. The entire book has been revised and many of the definitions have been rewritten and brought down to date. A special feature has been made of new biological terms. Much new matter has been added, covering the terminology of parasites, especially the protozoa. The table of tests is particularly full, covering thirteen pages and describing over 200 tests.

**CLINICAL STUDIES FOR NURSES:** For second and third year Pupil Nurses. By Charlotte A. Aikens, formerly superintendent of Columbia Hospital, Pittsburg, and of Iowa Medical Hospital, Des Moines. 12 mo. of 510 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1909. Cloth, \$2.00 net. W. B. Saunders Company, Philadelphia and London.

Aside from what we would naturally expect in such a volume there is quite a complete resume of Fletcherism. Howard A. Kelly and many other physicians recognize in Fletcherism—modified—a valuable adjunct in the treatment of indigestion and neurasthenia. The chapter on the nursing of orthopedic diseases is well illustrated. We also particularly commend the sections on physical therapeutics and massage. Every nurse who adds this to her li-

brary will by so doing show wisdom and gain wisdom.

**MEDICAL GYNECOLOGY.** By S. Wyllis Bandler, M.D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Second Revised Edition. Octavo of 702 pages, with 150 original illustrations. W. B. Saunders Company, 1909, Philadelphia and London. Cloth \$5.00 net; P. L. Moscov, \$6.00 net.

So much of gynecology today has seemingly become the special province of the abdominal surgeon, that a really scientific exposition of the medical side of this important subject is welcome reading. The opening chapter on gynecologic examination impresses one with the author's extreme delicacy in all manipulations of the female genitalia. A large proportion of young medical men upon entering practice aspire to fame as gynecologists or surgeons, and this book should be one of their first purchases.

The discussion of Head's Zones on pages 47 to 53, while not a new subject, calls attention to a good feature in examination often overlooked. Intrauterine therapy is mentioned chiefly to deprecate its use. The various medications and their application are explained, but the author states, "Local applications cannot destroy the bacteria in the depths unless we at the same time destroy the entire cervical lining." The paragraph upon "The Hygiene of Puberty" should be in the hands of every mother with a growing daughter.

Actmocaustes is used by Snedgirjeff of Moscow, by Pincus, Kahn, Pavlik and Duhrssen in Germany and Austria for differing conditions, inoperable cancer, fibroid uteri, septic conditions within the uterine cavity, and climacteric bleeding. Bandler says, "There is no doubt that uterine bleedings of climacterium and the uncontrollable hemorrhages occurring at this period and in earlier periods are a positive indication for its use. If not a specific, actmocaustes is at least the best method of



treatment for uterine fibrosis and arteriosclerosis." Actmocauses without question is a valuable adjunct in treating inoperable corpus carcinoma. The use of steam at a temperature of 75 degrees centigrade or higher within the uterine cavity, however, is an agent so fraught with danger that its use in any but extreme conditions is hardly likely.

The chapter on constipation by Dr. George B. Mannheimer is worthy of study. The doctor states that "Drugs play a minor role." He discusses habit, diet, kinesiotherapy, posture, massage, vibration, hydrotherapy and suggestion in treating this omnipresent condition.

Sixty-six pages are devoted to gonorrhea, and throughout the book this disease is constantly referred to. Microscopic technique in the first pages of the work evinces the author's familiarity and use of this instrument. On page 442 he notes its limitations. "The use of the microscope has done much to hinder the diagnosis of old or subacute cases of gonorrhea in adults." "The inability to find the gonococcus does not prove that the gonococcus is not present. So long as the secretion or shreds contain pus cells we know that inflammation has not ceased."

Malignant disease of the female genitalia is briefly considered. The importance of thorough examination and early recognition of possible malignant processes is emphasized. One is impressed with the fact that the author of this medical work is a pretty good surgeon. Surgical conditions are called such, and the usual criticism of a medical gynecology does not apply here.

C. W. D.

DIET IN HEALTH AND DISEASE. By Julius Friedenwald, M.D., Professor of Diseases of the Stomach, College of Physicians and Surgeons, Baltimore; and John Ruhrah, M.D., Professor of Diseases of Children, College of Physicians and Surgeons, Baltimore. The New (3d) Edition. Octavo volume of 764 pages. Cloth, \$4.00 net; Half Morocco, \$5.50 net, containing Recipes and Diet Lists.

Diet, today, holds a place of first importance not only in the treatment of disease, but also in its prevention. Every practitioner must have an authoritative work on this subject of diet. This new third edition will be found still more useful than the former two. The articles on milk and alcohol have been rewritten, additions made to those on tuberculosis, the salt-free diet, and rectal feeding, and several valuable tables added, including Winton's, showing the composition of diabetic foods. We heartily commend this work.

## CALIFORNIA HOSPITAL ALUMNAE NOTES

Miss Barbour has returned from a trip to Canada.

Miss Emma Cooper, California Hospital '08, is a bride.

Miss K. McKay has gone to Arizona to be absent about a year.

Miss Sue Miller expects to return soon from Hermosillo, Mexico.

Miss Eva Johnson has taken up hourly nursing and reports success along that line of work.

Mrs. Sara Van Dyke has resigned her position at Jerome, Ariz., and returned to Los Angeles to take up private nursing.

Miss A. Dougherty has gone to

Philadelphia, Pa., called hence by the illness of her sister.

Miss Lampman, formerly superintendent of the California Hospital, is now holding a similar position at Flower Hospital, New York City.

Miss Hagar, London, Canada, post-graduate California Hospital '08, has accepted a position as head nurse of 1st and 2nd East at California Hospital.

Miss Bertha Peterson, class of '08, has accepted a position as night superintendent of the California Hospital to succeed Miss N. Kelly, who retires to take up private nursing.

## MISCELLANEOUS—THERAPEUTICAL HINTS

## CALIFORNIA DECEMBER REPORT.

Dr. Charles L. Tisdale, secretary of the Board of Medical Examiners of the State of California, reports the written examination held at Los Angeles, December 7-10, 1909. The number of sub-

jects examined in was 10; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 97, of whom 66 passed, including 8 osteopaths, and 31 failed, including 8 osteopaths. The following colleges were represented:

College—	PASSED.	Year Grad.	Per Cent.
College of Physicians and Surgeons, Los Angeles.....	(1909)	81.7,	87.3
College of Physicians and Surgeons, San Francisco.....	(1906)		76.1
Hahnemann Medical College of the Pacific.....	(1903) 84.1; (1908)	81.4,	82.3
Cooper Medical College.....	(1908) 75.6, 79.6; (1909)		75.1
University of Southern California.....	(1905) 86.7; (1907)	75,	86.2
(1909) 77.1, 80.5, 81.4, 82.9, 87.2.			
Yale Medical School.....	(1906)		87.6
Denver and Gross College of Medicine.....	(1904)		86.4
Medical College of Georgia.....	(1883)		83.8
Hahnemann Medical College and Hospital, Chicago.....	(1886) 87.2; (1891) 82.7; (1898) 80.7; (1901)		78.3
Northwestern University Medical School....	(1898) 80.5; (1907) 80.3; (1909)		85.4
Rush Medical College.....	(1889) 88.2; (1908) 97.5; (1909)		87.4
College of Physicians and Surgeons, Chicago.....	(1909)	82.1,	86.2
State University of Iowa.....	(1885)		85.5
University of Kansas.....	(1909)		85.4
Johns Hopkins University.....	(1908)		85.8
University of Maryland.....	(1903)		81.2
Boston University.....	(1895)		83.9
Harvard Medical School.....	(1891) 81.4; (1898) 75.6; (1902)		75.1
Tufts College Medical School.....	(1907)		81.9
University of Michigan, College of Medicine.....	(1891) 79; (1902)		81.3
University of Michigan, Homeopathic College.....	(1908)		83.4
University of Minnesota, College of Medicine.....	(1894) 90.9; (1908)		75
Homeopathic Medical College of Missouri.....	(1898)		80
Marion-Sims College of Medicine.....	(1897)		83.9
Cornell University Medical College.....	(1909)		85.5
New York Homeopathic Medical College and Hospital.....	(1905)		75.2
Jefferson Medical College.....	(1893) 80; (1895)		80
Hahnemann Medical College, Philadelphia.....	(1901)		75
Starling Medical College.....	(1902)		80.1
Medico-Chirurgical College, Philadelphia.....	(1901)		80.6
McGill University, Quebec.....	(1905)		76.3
Western University, London, Ontario.....	(1899)		84.4
University of Heidelberg, Germany.....	(1907)		89.6

## FAILED

University of Southern California.....	(1908)	71.7
College of Physicians and Surgeons, San Francisco.....	(1902) 42.9; (1906) 72.7; (1907) 71; (1909)	66.5
Cooper Medical College.....	(1908) 71.8; (1909)	68.1
College of Physicians and Surgeons, Chicago.....	(1904)	49.4
Rush Medical College.....	(1895)	67.8
Northwestern University Women's Medical School.....	(1890)	73.5
College of Physicians and Surgeons, Keokuk.....	(1880)	43.8
Kentucky School of Medicine.....	(1889) 66.8, 71.2; (1894)	69.7
University of Maryland.....	(1909)	68.4
Michigan College of Medicine, Detroit.....	(1881)	19.6
University of Michigan, College of Medicine.....	(1880) 56.8; (1895)	71.5
Kansas City Medical College.....	(1891)	76.2
Jefferson Medical College.....	(1890) 73; (1894) 69.4; (1895)	59.6
University of Turin, Italy.....	(1899)	18.7

—Journal A. M. A.

## TREATMENT OF BOILS.

Dr. G. T. Jackson (*American Journal Medical Science*, June, 1909,) believes that boils have nothing to do with constitutional states, but are due

to local infection with staphylococci. They are most often seen on the back of the neck because this region is subject to slight traumatism, as from rubbing of a rough collar or the collar

button, this giving the pus organisms a chance to enter the skin. Crops of boils are due mostly to bad treatment of the first boil, especially the old method of poulticing, incision, squeezing out the pus and resuming the poultice, which disseminates the infection. The treatment, which he has employed for many years, requires only a small piece of wood sharpened to a fine point, a little absorbent cotton, a 95 per cent. solution of carbolic acid, and a 5 or 10 per cent. ointment of salicylic acid. As soon as the boil has pointed, a small bit of cotton is wound about the pointed stick, dipped in the carbolic acid, and bored into the softened point of the boil. This gives a chance for the pus to escape and thoroughly disinfects the cavity of the boil. The boil is not to be squeezed. The surface of the skin in the neighborhood of the boil is then washed over with peroxide of hydrogen, or a solution of bichloride of mercury, 1 in 1000, and the salicylic acid ointment spread on old washed cotton or linen cloth, or several thicknesses of gauze, laid over the boil and the adjacent region. If it is a very large boil, the operation may have to be repeated the next day. The ointment is to be kept constantly on the affected part for a week. A few new boils may appear for a few days in the region, the result of the infection of the skin follicles before this treatment was instituted. They are to be treated in the same way, and a cure will soon be attained. If a patient presents himself before the boil has pointed it may be absorbed by injecting into it a drop or two of a 5 to 10 per cent. solution of carbolic acid, or touching its top with 95 per cent. carbolic acid, while the above mentioned salicylic acid ointment is used for a dressing.—*International Journal of Surgery*.

Attached to the legs are the feet. Some varieties of feet are cold. Some

people are born with cold feet, others acquire cold feet, and still others have cold feet thrust upon them.

The surface of the body is covered with cuticle, which either hangs in graceful loops or is stretched tightly from bone to bone.

On the face it is known as the complexion, and is used extensively for commercial purposes by dermatologists, painters, and decorators.

Between the cuticle and the bones are the muscles, which hold the bones together and prevent them from falling out and littering up the sidewalks as we walk along.

Packed neatly and yet compactly inside the body are the heart, the liver, and the lungs; also the gall, which in Americans is abnormally large.

These organs are used occasionally by the people who own them, but their real purpose is to furnish surgeons a living.—*Exchange*.

---

#### EXPERIENCED.

A mother of a seven-year-old lad was daily expecting a visit from the stork and found the little fellow's conduct so annoying that his father was called upon to interfere.

"Bobby," said papa, "Mama is quite ill and we are afraid that if you are not a better boy and mind your mother, it will bring on a crisis. Now, my boy, perhaps you don't know what a crisis is."

"Oh, yes, I do, papa," said Bobby blythely, "it's either a boy or a girl."—*Judge*.

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#### FOR PROSTATECTOMY.

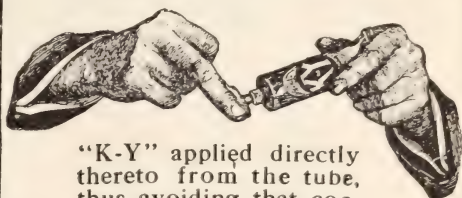
The general tendency regarding the preparation of patients for surgical interference is to reduce the details to a minimum, although there are some patients who will do better if they are especially prepared. In reviewing the autopsy findings in cases from the clinic in St. Mary's Hospital which had terminated fatally fol-



lowing operation for the removal of the prostate, it was found that the cause of death in practically every instance was kidney insufficiency and acute nephritis superimposing on an old kidney lesion, usually chronic nephritis. Because of systemic conditions some of these patients are not good subjects for operation; on the other hand, the poorest subject will sometimes endure a difficult prostatectomy with considerable loss of blood and be in good condition in a few days. As the gland increases in size the amount of residual urine increases until the back pressure, coming gradually, becomes a constant factor in the function of the kidney. Continued withdrawal of the pressure will throw the kidneys into a condition of acute congestion, and if they are partially disabled the sudden change may prove very serious, resulting in acute nephritis and suppression. To overcome this difficulty at St. Mary's Hospital we commence by emptying the bladder with a catheter at stated intervals, gradually shortening the intervals until the bladder is emptied every hour. In our experience it has not been satisfactory to leave catheter in the bladder. No particular advantage is to be derived from special diets, therefore regular diet is maintained up to the morning of the operation. One ounce of castor oil given forty-eight hours before operation is most satisfactory. Salt solution by rectum soon after operation aids elimination from the kidneys. Looseness of the bowels is most undesirable. The arteries of these patients are hard and inelastic and it is difficult to fill up the circulation; the patients are, therefore, encouraged to take great quantities of fluids for several days before operation. Urotropin (hexamethylenamin) given in doses of from 7 to 10 grains several times each day for a few days before operation will help

## Digital Examination

may be much facilitated—and its safety assured—by lubricating the finger with



"K-Y" applied directly thereto from the tube, thus avoiding that contamination of the patient, or lubricant, which often takes place when—in the old way—the finger is thrust into an open pot of Petrolatum, with every probability of leaving the latter in septic condition for future use.

"K-Y" Lubricating Jelly is non greasy, water-soluble, antiseptic and contains NO formaldehyde.

In collapsible tubes.

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the condition and tend to better the quality of the urine. The cystoscope is a valuable aid in the determination of the amount and kind of preparatory treatment. An operation should not be attempted during an acute cystitis or epididymitis. It is not advisable to remove the gland in the stage of acute retention.—E. S. Judd in *Journal A. M. A.*

## HAMMOND'S STRYCHNIA TREATMENT LOCOMOTOR ATAXIA.

Dr. Graeme M. Hammond in the *Post Graduate* says: My method of administering his treatment is as follows:—beginning with a dose of 1/30 of a grain three times a day, at the end of a week I increase this dose to 1/20 of a grain; and at the end of another week to a 1/16. These doses are

given in tablet form by the mouth. At this time, I give in addition to the tablet of  $1/16$  of a grain one drop of a solution containing one grain of strychnia to one ounce of water; next day two drops are given; next day three drops, and so on, each day increasing one drop until doses of thirty drops three times a day are reached. As thirty drops of this solution just equal a  $1/16$  of a grain I am able to discontinue the drops and to substitute for them another tablet containing a  $1/16$  grain; thus the patient will then take two tablets each containing  $1/16$  of a grain three times a day or  $1/8$  of a grain at a dose. I maintain this dose for three months, then increase the dose with the solution the same as before until a dose of  $3/16$  is reached. I maintain this dose for at least three months, and then gradually increase as before. In this way the increase in dosage is made so gradually that few patients appreciate any difference. Seldom do we find any improvement in the patient's condition until a dose of  $1/4$  of a grain three times a day is reached, though the patient's general health improves long before this period. After a maximum dose of  $1/2$  grain is reached it has been my custom to maintain this dose for about a year and then to gradually reduce it. I now have patients under observation who have not had any strychnia for over two years, and who show no signs at present of relapsing.

In addition to this strychnia treatment I think highly of Frankel's exercises, which seem to me to do a great deal of good as long as they are kept up, but it is my experience that as soon as the exercises are discontinued the patient soon loses all the benefit which he derived from their employment.

I have nothing to say about the so-called cure, which was exploited a

few months ago. I refer to the treatment of ataxia by application to the urethra. The theory advanced was so untenable that it does not seem to me worthy of any consideration whatever. I feel sure that those of you who will treat your cases of ataxia by the gradually increasing doses of strychnia, if properly carried out, and if continued for a long time, will obtain better results than by any other method heretofore employed.

#### PACIFIC LIFE INSURANCE.

George I. Cochran was re-elected president of the Pacific Mutual Life Insurance company at the annual meeting of the home institution which was held February 14 at the home offices, Sixth and Olive streets. The other officers chosen were the incumbents, as follows: Vice president, Gail B. Johnson; second vice president, Danford M. Baker; third vice president, Rich J. Mier; secretary, C. I. D. Moore; first assistant secretary, A. W. Morgan; second assistant secretary, Harry E. Moore; treasurer, Gail B. Johnson; assistant treasurer, Thomas B. Inch; medical director, Dr. W. W. Beckett; assistant medical director, Dr. V. A. Humphrey.

Executive committee—Gail B. Johnson, John Miller, J. C. Drake, W. J. Crocker, Lee A. Phillips, Dr. W. W. Beckett.

Board of directors elected by stockholders—Henry T. Scott, president Pacific Telephone and Telegraph company; Isaac Millbank, real estate; John B. Miller, president Southern California Edison company; Joseph H. Clark, capitalist; Lee A. Phillips, associate counsel; J. C. Drake, president Los Angeles Trust company; E. J. Marshall, president Chino Land and Water company; Fred H. Beaver, insurance; W. W. Beckett, medical director; W. H. Crocker, president Crocker National bank; H. G. Brain-

## A Palatable Food-Fat for Children

Some children dislike the taste of cod-liver oil.

But it's the exceptional child that won't take Hydroleine and ask for more.

It has a smooth, delicate, nutty flavor that neither offends nor tires the palate—a matter of importance when the use of the oil is to be long continued.

Hydroleine is simply pure, fresh cod-liver oil perfectly emulsified and rendered palatable, stable and—unusually digestible. Sold by druggists.

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erd, physician; Gail B. Johnson, vice president; John R. Haynes, physician and capitalist; W. H. Davis, general counsel; George I. Cochran, president; Milbank Johnson, physician; Lucien Shaw, justice supreme court of California; Danford M. Baker, second vice president; John Newton Russell, Jr., manager home office agency department.

Indicative of the rapid growth of the Pacific Life Insurance company, attention is directed to the fact that \$22,287,279 was the amount of new total life business written in 1909, with total life business in force, \$111,539,785; total cash income (1909), \$6,164,528; premium income in 1909 from accident department, \$1,007,370; total paid policy holders, \$1,986,628; increase in life business in force,

\$7,136,906; increase in assets, \$2,329,130; increase in cash income, \$531,404; increase in reserve, \$1,982,190; increase in surplus, assigned and unassigned, \$240,904.

The scientific department of Eli Lilly & Co. recently engaged the services of Dr. Charles C. Haskell, who will give his time to experimental therapeutics and pharmacology. Dr. Haskell is a native of Columbia, South Carolina. In 1905 he graduated from the University of Va. with the degree A. B. Following the completion of his academic work he entered the medical department of the university, remaining one session, afterwards matriculating in the Harvard Medical School, from which institution he received his M. D. degree in



June, 1908. Since graduation Dr. Haskell served as interne one year in the Long Island Hospital, Boston; as physician to the Floating Hospital of St. John's Guild, N. Y., and as interne in the Willard Parker Hospital (for scarlet fever and diphtheria) of the New York Health Department, from which institution he came to the Lilly Laboratories. Much work has been done in physiological testing and assaying by the Lilly laboratories under the direction of Mr. C. R. Eckler, formerly of the University of Michigan. The addition of Dr. Haskell to the department of pharmacology will enable the work to extend into experimental therapeutics much further than heretofore.

Improper breathing is a frequent cause of consumption. A large majority of people are too lazy or too ignorant to breathe deep, and hence the lungs are developed only to part of their capacity and thus afford fertile field for the growth of the tuberculosis germ.

#### BE THANKFUL

If you have the sense to realize that this is inevitable, unavoidable, and the way of the world, and if you have the sense to talk over, in a friendly way, the first delicate situation that arises, the difficulties will disappear and recurrences may be made impossible. A man of whom you have heard as the incarnation of unprofessional conduct, and who has been held up as an example of all that is pernicious, may be, in reality, a very good fellow, the victim of petty jealousies, the mark of the arrows of the rival faction, and you may, on acquaintance, find that he loves his wife and is devoted to his children, and that there are people who respect and esteem him. After all, the attitude of mind is the all-important factor in the promotion of concord. When a man is praised, or when a young man

has done a good bit of work in your special branch, be thankful—it is for the common good. Envy, that pain of the soul, as Plato calls it, should never for a moment afflict a man of generous instinct and who has the sane outlook in life.—*William Osler.*

#### THE FOLLY OF THE WISE.

The doctor who disregards the proof that both chemical tests and years of service offer in evidence of the fact that TYREE'S ANTISEPTIC POWDER is the most potent, prompt and practical remedial agent in every form of practice; from genito-urinary and rectal, in all phases, to the treatment of the slightest skin abrasion—I say the doctor who fails to recognize this truth is losing both professionally and financially.

Just because TYREE'S ANTISEPTIC POWDER is the *least* expensive is no reason why it is not *most* effective. That you may demonstrate both these facts for yourself, a package will be sent to any doctor, all charges prepaid, upon request. And along with it will be sent an instructive booklet dealing with Tyree's Powder from a chemical, bacteriological and clinical standpoint, tiny yet of incalculable value to any medical library.

When directing the use of such a preparation we ask that you give preference to Tyree's by designating it. J. S. Tyree, Chemist, Washington, D. C.

#### CHRISTIAN SCIENCE LABOR PAINS.

Gillespie, in *The Lancet-Clinic*, details an amusing obstetric case, from which we draw the lesson, that when a physician is engaged to attend a Christian Scientist in labor, he should lay in an extra supply of analgesants. The amazement of the patient when she found she could not persuade herself out of the belief in those relentless pains is capitably described.

# SOUTHERN CALIFORNIA PRACTITIONER

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Editor,  
DR. WALTER LINDLEY.

Associate Editors,  
DR. GEORGE H. KRESS and DR. JOHN W. FLINN.

Assistant Editors,  
DR. H. BERT. ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW  
and DR. F. M. POTTENGER.

## BONE CYSTS.

BY DEAN LEWIS, M.D., CHICAGO, ILLINOIS.

I consider it a great privilege to be able to meet with the members of the Southern California Medical Society this morning. During the past few months I have had my attention attracted to cysts of the long pipe bones and jaws. Although the etiology and pathology of cysts of the long pipe bones and jaws are essentially different, I wish to consider them together. Clinically it is especially important to recognize the nature of these cysts, for they are as a rule benign. Operations have been refused patients suffering with multilocular cysts of the jaw, because the cyst has been regarded as a large sarcoma or carcinoma, and mutilating operations have been performed upon the extremities, when a conservative operation, such as curettage of the cavity of a bone cyst, would have sufficed to correct the existing pathological condition.

Occasional mention is made in earlier surgical literature of cysts of the bones of the trunk and extremities. Dupuytren and Nelaton described cysts with semi-solid and fluid contents, but these were generally regarded to be the re-

sult of degenerative changes in tumors. Volkmann stated that it was doubtful whether simple cysts occurred within the bones and that when cysts were found they were much more apt to be the result of degenerative changes in pre-existing tumors or echinococcus, than simple cysts. Our knowledge of cysts of bone begins with Virchow's case. He found in the upper end of the right humerus of a woman 56 years of age, who had died after an operation for the removal of a lympho-sarcoma of the neck, a cyst, the walls of which contained fibro-cartilage. Because of the cartilaginous characteristics of the cyst wall and because islands of cartilage were found in the marrow adjacent to the cyst wall, Virchow believed that the cyst was to be regarded as a new growth, the result of liquefaction of a pre-existing chondroma. Virchow's authority was so great that for a number of years bone cysts were regarded as the result of softening of enchondromas. In 1891 Recklinghausen contributed an article to a Festschrift inscribed to Virchow in honor of his seventy-first birthday in which he de-

scribed a disease of bone characterized by the transformation of the fatty marrow into fibrous tissue which might bear a close resemblance histologically to a giant-cell sarcoma and from which cysts might develop as the result of liquefactive changes. To this disease, frequently accompanied by spontaneous fractures and deformities of the bony skeleton, he gave the name of deforming fibrous osteitis or chronic deforming osteomalacia. Recklinghausen's paper dealing with three cases of this disease marks the beginning of a more accurate knowledge of the pathology and

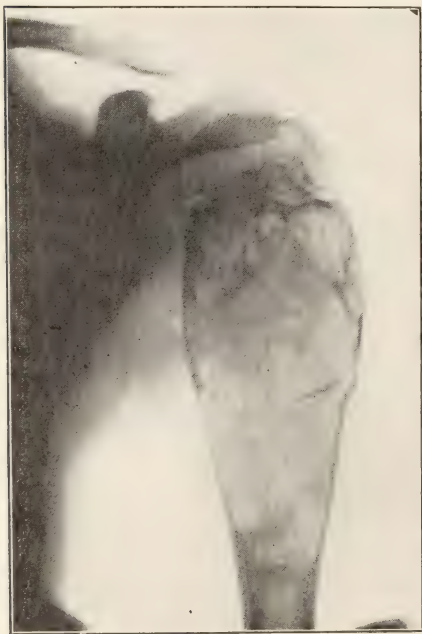


FIG. 1.  
X-ray picture of bone cyst in upper end of right humerus. The multilocular nature of the lesion is shown. The cyst expands the bone equally in all directions, filling the interior of the thinned cortex like a mould. The cortex on the outer side has been fractured at one point. There has been no extension of the mass through this fissure. Symmetrical expansion of the cortex, absence of extension through the thin cortex and lack of periosteal proliferation are the most characteristic findings in X-ray pictures of bone cysts.

clinical significance of the bone cysts and raises the point as to the classification of some growths in bone which resemble those usually regarded as giant-cell sarcomas.

Pathologically fibrous osteitis is characterized by some peculiar changes, the significance of which is still under discussion. The transformation of the marrow into fibrous tissue is accompanied by decalcification and expansion of the bone, so that the first clinical evidence of this disease of bone may be a pathological fracture or shortening due to bending at the site of the lesion. To many the development of growths within the bone, which resemble giant-cell sarcomas histologically but differ in their clinical course, appears to be the most peculiar feature of the disease. The clinical course of a case observed by Rehn, a short abstract of which will be given, raises considerable doubt as to whether the tissue resembling that of a giant-cell sarcoma, occurring in osteitis fibrosa, should be regarded as inflammatory or neoplastic in character. Rehn's patient was a poorly nourished girl 23 years of age. She complained first of pain in her right hip. Soon a swelling developed and the affected bone began to bend, considerable deformity resulting. Other bones softened and spontaneous fractures occurred. Three operations were performed upon these swellings associated with spontaneous fracture and in each instance a diagnosis of a giant-cell sarcoma was made. After nine years the patient died, of cachexia. The gross changes in the bones, which could easily be cut with a knife, were of two types. In some areas the marrow cavity was occupied by tissue, which was white in color and hard in consistency, while in other areas brownish red tissue, which in places was cystic, was found. Microscopic examination demonstrated

\*Fibrous osteitis is to be sharply differentiated from the osteitis deformans described by Paget. Paget's bone disease occurs in old people and while the essential pathological change consists of a fibrous transformation of the bone marrow, accompanied by a peculiar thickening and lengthening of one or more long bones, there is entirely wanting any tendency to tumor or cyst formation.



that the white hard material consisted almost entirely of fibrous tissue, while the brownish red tissue represented polymorphous giant-cell sarcomas, which without any distinct transitional stages passed over into the adjacent marrow, transformed as the result of the pathological process into fibrous tissue. Rehn believed that the firm, white tissue had developed from that resembling a giant-cell sarcoma, and as the disease had run a clinical course of ten years he regarded the brownish red tissue as inflammatory rather than neoplastic. Rehn's reasons for considering this process as inflammatory are the following: (1) A clinical course of ten years without metastases, the separate growths appearing independently of each other; (2) no extension of the growth to adjacent structures; (3) apparent transformation of material resembling that of a giant-cell sarcoma into fibrous tissue. The clinical history of this case and the associated pathological findings are exceedingly important. The clinical course of such a case is different from that usually ascribed to a giant-cell sarcoma and raises some doubt as to the clinical and pathological significance of some of the growths of bone usually regarded as giant-cell sarcomas.

The essential features of fibrous osteitis are the development of fibrous tissue in the bone marrow throughout which may be scattered giant-cells; decalcification and expansion of the cortex of the bone ending in pathological fractures and deformities; and the liquefaction of this newly formed tissue resulting in cyst formation. The cyst wall varies considerably in different cases. A small cyst may be surrounded by a large mass of tissue or a large cyst may be surrounded by a membrane, never epithelial in character, which is composed of delicate connective tissue fibrillae. The walls of the cyst may contain islands of cartilage, as in Virchow's case, or tissue resembling a giant-cell sarcoma. The contents of

such a cyst are usually of a reddish or chocolate brown color, due to the admixture of blood, and in one of the cases observed by me it was difficult to differentiate by the naked eye the contents of what I believe to be a bone cyst in the early stages of development from a giant-cell sarcoma operated upon a short while before. The walls of a bone cyst are usually covered by pigment granules or particles of marrow.

Bone cysts and circumscribed forms of fibrous osteitis have many things in common: (1) The long bones are apt to be involved in each; (2) the age incidence of each is the same; (3) both are cured by simple incision and curettage, even though tissue is frequently found in fibrous osteitis which resembles that of a giant-cell sarcoma; (4) transitional stages can often be followed through different phases from development of fibrous tissue in the bone marrow to cyst formation following liquefaction of this newly formed fibrous tissue. Braun's case (occurring in a boy 12 years of age with expansion and spontaneous fracture of the



FIG. 2.

Chondrosarcoma of the upper end of the humerus. Compare with Fig. 1. The early extension of the tumor through the cortical layer of bone is shown. Involvement of the head of the bone is evident.

humerus) represents the first stage of the process—fibrous tissues in the center of the bone without cyst formation. Schlange, Koenig, Haberer and Tietze's cases represent the stage of cyst formation, the cyst wall being composed of cellular tissue, resembling a giant-cell sarcoma. The cysts reported by Körte, Beck, Kehr and Koch had walls composed of well organized tissue. Mikulicz described a disease of bone, which he called juvenile cystic osteodystrophy. The changes found in this disease are much the same as those described in fibrous osteitis, and I believe that it represents the same pathological changes, although the cysts observed by Mikulicz were larger than those usually observed in osteitis fibrosa and the disease occurs at a somewhat earlier age.

While the evidence which has accumulated favors the theory that bone cysts are but a phase in the clinical course of fibrous osteitis, there are other theories as to causation which should be mentioned. It has been suggested that these cysts are due to hemorrhages within the marrow cavity and that they are quite analogous to brain cysts which follow apoplexy. If such were the case they would certainly be more common than they are. Repeated examinations of fractures in different stages of repair fail to reveal anything which corresponds at all to the find-

ings in bone cysts as revealed by X-ray pictures. Lexer has demonstrated by animal experimentation that healing takes place without cyst formation, even after extensive destruction of the spongiosa of long bones with considerable intra-osseal hemorrhage. It has been suggested that some bone cysts develop as the result of a mild infection which does not end in pus formation. Staphylococci have been demonstrated in case by Braun. This case will be mentioned later in connection with a case observed by me.

The close clinical relationship between fibrous osteitis and bone cysts has been noted above. Fibrous osteitis is essentially a disease of the young, occurring most frequently during the second decennium. The disease has, however, been observed in young children. Pfeiffer observed a case in a boy two and one-half years of age. The following statistics taken from Pfeiffer's article indicate the ages at which the lesion has been most frequently observed. The statistics are based upon 49 cases:

Between 1-10.....	6 cases
Between 10-20.....	29 cases
Between 20-30.....	7 cases
Between 30-40.....	4 cases

—  
46

Three of the cases collected by Pfeiffer were of advanced age. Westphal's patient was 82 years of age, Frank's 56, and Helbing's 50. It is possible that some of these should not be classified under this disease; on the other hand it is possible that the lesions appeared early in life and pursued an unusually latent course, the symptoms becoming pronounced at a late period of life. It will be seen from the above statistics that about 84 per cent. of the cases have occurred between the first and thirtieth years of life.

As previously mentioned the long pipe bones are most commonly involved. In the 46 cases mentioned above the



FIG. 3.

Central giant cell sarcoma of the lower end of the radius. The shadow is homogeneous, the spongy portion of the bone apparently is fused.

femur was involved in 19 cases, the lesion being situated in the upper end of the bone in 14 of these. In five cases both femora were involved. The tibia was affected 12 times, the lesion being situated in the upper third in 9 instances, in the middle third in 1 and in the lower third in 2. The humerus was involved in 10 cases, the lesion being in the upper third in 8 and in the middle third in 2 cases. Isolated instances of involvement of the radius, ulna, fibula, clavicle, and calcis, metatarsal and metacarpal bones, the phalanges and ilium have also been observed. It is found in analyzing these cases that the metaphyses of long bones are much more frequently the seat of these changes than the diaphyses and epiphyses. This clinical fact is not easily explained, but the more frequent location in this part of the bone is supposed to be due to the fact that it is more frequently subjected to strain and stress than are the others.

It is exceedingly important to make an accurate diagnosis in these cases, for bone cysts are benign and can be cured by a conservative operation. In most cases, of course, the lesion must be differentiated from central sarcomas, occasionally from tuberculous abscesses or gummata centrally situated. The X-ray affords the best means of making a differential diagnosis, which, I believe, is possible in most cases. Some, however, are more or less skeptical about its value in differential diagnosis, because they believe that the differences between a bone cyst and a central sarcoma are not characteristic enough to warrant one in differentiating between the two.

I will give a short history of a bone cyst of a humerus, a picture of which is reproduced in Fig. 1, and then discuss the characteristic differences between bone cysts and central sarcomas.

A boy, 12 years of age, had complained of some pain in and about the right shoulder joint for some three

years. The pain developed gradually without an acute onset and persisted with about the same severity. There had never been any severe injury. The motions of the shoulder joint were of about normal range, possibly slightly restricted. The boy is fairly well nourished and of about normal size. The upper third of the shaft of the right humerus is considerably expanded, but there is no interference with motion. The bone is somewhat tender. There is no effusion into the shoulder joint. Examination of the remaining bones of the trunk and extremities fails to reveal any changes whatever. The findings revealed by an X-ray picture are perfectly typical in this case. Fig. 1 is a reproduction of a picture of this case. The upper third of the humerus is occupied by a mass which casts a rather light shadow. It is thrown apparently by a number of isolated masses. In the upper and middle thirds of this light shadow are two transverse dark shadows. This mass fills like a mould the thinned expanded cortex of the shaft, which is not much thicker apparently than an egg shell. This sym-

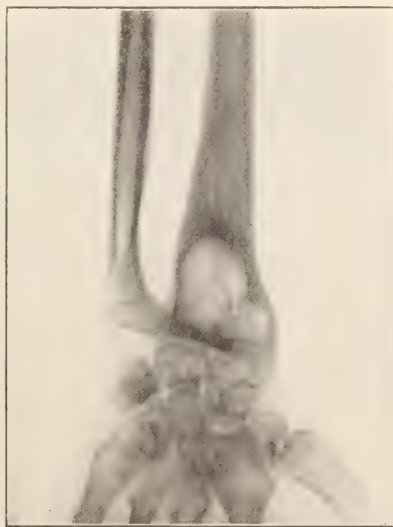


FIG. 1.  
X-ray picture of Case 2 discussed under  
cysts of long pipe bones.



metrical shadow, which enlarges equally in all directions; the thinned cortex of bone through which the growth has not extended after a period of three years; and the absence of any evidence of proliferation upon the part of the periosteum are findings which I believe to be distinctive of cysts of the long pipe bone. Upon these characteristics a positive diagnosis can be made in the majority of cases. Even in a case in which spontaneous fractures occur, which often institute processes ending in repair, there is no extension of the fibrous tissues occupying the marrow cavity through the fissure into the surrounding tissues.

Figs. 2 and 3 represent central giant-cell sarcomas of bone. Fig. 2 represents a primary growth. Fig. 3 two secondary growths situated close together. The differences between Figs. 1, 2 and 3 are so marked that no description is necessary. Central sarcomas rarely expand the bone symmetrically, usually growing much more rapidly in one direction than another; they rapidly extend through the thin cortex of bone, invading the surrounding tissues



FIG. 5.

X-ray picture of multilocular cyst of jaw described in Case I. The different cysts, separated by heavy fibrous and bony trabeculae, are seen. The extension of the growth into the mouth is also shown. The dotted lines represent the outlines of the soft tissues of the face. Eight ounces of muco-haemorrhagic fluid were aspirated from the cysts before it could be manipulated during resection of the jaw.

with or without fracture. In most instances I believe that the X-ray findings are more reliable than microscopic, for in some instances the real significance of the latter are difficult to interpret.

Recently I have seen figures in two books devoted to the surgical application of X-ray pictures which were labeled central sarcomas of the femur. I have no hesitation whatever in pronouncing these bone cysts, because of the characteristic findings.

Case II. Although this lesion cannot be regarded as a bone cyst as the term is usually employed, I would like to give a history of the case and direct attention to Fig. 4, as the case corresponds quite closely to one described by Braun and may throw some light on the etiology of some cysts.

Mrs. S B., aged 28, noticed some twelve years ago that her left wrist was somewhat weaker than her right. At the same time she noted some swelling over the dorsum of the wrist and the lower end of the left radius. The pain, which often extended to the elbow, increased in severity at times, but as far as I can elicit there has never been an acute onset, suggesting an acute osteomyelitis. At the time she entered the hospital her temperature was normal. No history of any preceding infection apt to be accompanied or followed by bone involvement could be elicited.

The lower end of the left radius is somewhat expanded and slightly tender upon pressure. I was inclined to regard the lesion as a bone abscess. The X-ray picture reveals a distinct unilocular shadow which does not correspond to the findings of a bone cyst. The cortex surrounding the cavity is quite thin without much evidence of proliferative changes in the periosteum. When the cavity was opened a chocolate brown mass, which resembled closely a central giant-cell sarcoma removed from the lower end of the radius in another pa-

tient a week previously, was found. A provisional diagnosis of giant-cell sarcoma was made, although neither the clinical history nor the X-ray findings justified it.

Upon microscopic examination it was found that the material removed was granulation tissue, which was apparently undergoing transformation into fibrous tissue. There were no evidences of necrosis or pus formation. I believe that this lesion was due to an extremely mild infection which did not end in necrosis and pus formation and that this tissue might eventually have become transformed into fibrous tissue, which might either have gone on to bone formation or have become liquefied. Cultures were not made at the time the tissue was removed, but bacteria had not been demonstrated in the tissues.

As stated above, this case does not correspond to our conception of a bone cyst. It is quite analogous to the one described by Braun in which staphylococci were found and is cited to illustrate one possible factor—infection with very attenuated bacteria—in the etiology of fibrous osteitis.

It has been stated above that the growths appearing in fibrous osteitis do not correspond clinically to giant-cell sarcomas, even though they resemble the latter histologically. The growths in fibrous osteitis may be multiple, appearing almost simultaneously or in rapid succession without any evidence of metastases. Again the clinical course of cases of fibrous osteitis with so-called tumor formation is much longer than that usually associated with giant-cell sarcomas and besides pathological fractures occurring in fibrous osteitis in which tissue resembling a giant-cell

sarcoma is found tend to heal readily with the formation of considerable callus. Reparative processes of this character are certainly the exception in pathological fractures associated with giant-cell sarcomas.

It is undoubtedly difficult to interpret the findings in some cases of fibrous osteitis and to decide whether or not the tissue found is neoplastic or inflammatory in character. Lubarsch believes that the brownish red tissue which contains giant cells, is not true tumor tissue, but represents a peculiar inflammatory or resorptive formation. In true giant-cell sarcomas the giant cells form an integral part of the picture rather than an accidental finding. In fibrous osteitis the absence of cellular polymorphism and the adult or ripe appearance of the cells forming the tissue are the most distinguishing features. The spindle cells with an intercellular substance, the absence of hyperchromatic nuclear figures and atypical mitoses, and the grouping of giant cells about clumps of pigment—an arrangement suggesting foreign body giant

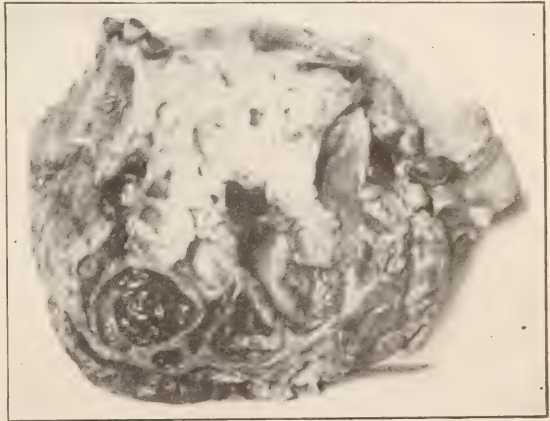


FIG. 6.

Hemisection of tumor represented in Fig. 4. Several large cysts—some of which contain old blood clots—may be seen in the lower part of the figure. The white part of the tumor adjacent to the alveolar border is composed almost entirely of solid columns of enamel epithelium.

cells—are enough to suggest a diagnosis of fibrous osteitis and to raise some question as to the classification of these growths with giant-cell sarcomas.

The clinical and histological differences are striking enough to leave but little doubt that these so-called tumors are not neoplasms in the strict sense of the word.

Bone cysts should be treated conservatively. Spontaneous fracture may institute processes ending in cure, the fibrous tissue undergoing ossification. Opening of the thinned cortex of the bone, followed by curettage of the cyst cavity, which is either filled with a bone plug or packed with gauze, are sufficient in cases of localized fibrous osteitis with cyst formation to effect a cure. In cases in which many bones are involved the disease may go on to fatal termination in spite of any treatment that may be employed.

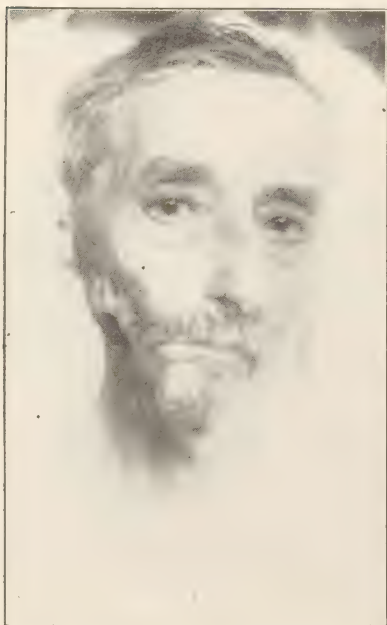


FIG. 7.

Patient 18 days after removal of tumor shown in Fig. 1. No prosthesis. There is considerable deviation of the left half of the mandible to the right.

#### MULTILOCULAR CYSTS OF THE JAWS.

The classification by Magitot of cysts occurring within the jaws into periosteal or paraodontal cysts and follicular cysts is a simplification which has added considerably to our knowledge of these growths. Periosteal cysts, the result of caries of the roots of the teeth, will not be considered other than to note their greater frequency in the upper jaw. Follicular cysts are usually unilocular and without an epithelial lining. Although cases are quite common in which a unilocular cyst with an epithelial lining has been described, I believe that even in these cases the unilocular character of the cyst should be the determining factor in classification and that they should be classed with follicular cysts, notwithstanding that they have a lining of adamantine epithelium.

Periosteal and follicular cysts are relatively common. They have none of the interesting clinical and histological features pertaining to multilocular cysts of the jaws, which are relatively uncommon. Senn states that multilocular cystic tumors of the jaw are uncommon and Steensland in 1901 could collect but 21 cases which he was willing to accept as undoubted examples of tumors of this group. Bland-Sutton believes that many of the tumors which have been placed in this group are endotheliomata of the jaw and that the histological findings have been misinterpreted.

Under multilocular cysts of the jaws, I have included the solid central epithelial tumors of the mandible and maxilla, as they are merely precursors of the cystic growths. These tumors have appeared in the literature under a number of different terms, such as "multilocular cystic tumors of the jaws," "kystes multiloculaires," "epithelioma seu adenoma adamantinum," as "follicular cystoids" and "proliferating follicular cysts."

Before discussing the clinical and





FIG. 8.

Section of cyst removed by Dr. Bevan. Small, round cell columns, cut transversely, are seen in the left of the figure. The large branching columns to the right are composed externally of cylindrical cells, while those forming the inner part of the columns are polygonal and stellate in shape. These cells have their prototypes in the cells of the tunica intima, stratum intermedium, and zona media of the germinal enamel epithelium.

pathological characteristics of this group of tumors, I would like to give a short history of the three cases which I have had the opportunity of studying. The first is typical of tumors of this class; the second recurred three times, reproducing in each instance the structure of the primary growth; the third pursued a fairly rapid clinical course which is unusual for a growth of this character.

Case I. Mr. G. S., aged 66, was referred to me July 12, 1909, by Dr. E. C. Rosenow. His present trouble began as a swelling of the gum surrounding the right lower molar teeth 5 years ago. During the following year the growth was frequently incised to permit of the discharge of what the patient calls pus. At the end of the year, four years ago, he consulted a surgeon, who removed a piece of tissue for examination. An operation was deemed inadvisable and X-ray treatment was suggested. In spite of X-ray treatments the growth gradually enlarged for two years and then became stationary.

During this time the patient had suffered from severe toothaches. He states that the jaw aches almost all the time at present. All the teeth are missing upon the affected side with the exception of the incisors. During most

of the time the patient has acted as his own physician, emptying each morning one of the large cysts by passing a grooved director into it through a sinus which followed extraction of a tooth. About three ounces of fluid are discharged each morning through this sinus and then the patient is fairly comfortable for the rest of the day.

This tumor in its appearance and physical characteristics is typical of growths of this class. It is as large as a good sized foetal head, extending from a little below the zygoma above to the hyoid bone below and from the median line beyond the angle of the jaw posteriorly. The tumor is covered by thin, atrophic skin which is not infiltrated or ulcerated. The mucous membrane covering that part of the growth projecting into the mouth is intact. There is no involvement of regional lymph nodes. Cystic areas can be palpated but parchment-like crackling cannot be elicited. Aspiration of the cysts reveals a muco-haemorrhagic fluid. I know of no growth occurring within the jaws other than a multilocular cyst, which could reach such a size and extend over a period of five years without invading any of the surrounding structure. The diagnosis was

based upon the long clinical course and the cystic nature of the growth.

The tumor was removed July 17, 1909. I was assisted in the operation by Dr. C. J. Rowan. The incision extended from the middle of the lower lip downward and backward to the mastoid process. The tumor was so large that the jaw could not be held forward and respiration was considerably embarrassed. The cysts were therefore immediately aspirated, eight ounces of fluid being removed. The growth then partially collapsed and could be manipulated easily. Respiration became free. A typical resection of the jaw was then performed, after ligation of the external carotid artery, which controlled hemorrhage very successfully. The jaw was divided posteriorly at the middle of the ramus. Two small cysts remained and their lining membrane was curetted away.

The patient withstood the operation well. He developed pneumonia on the third day, but recovered slowly; convalescence being rather prolonged. The general condition of the patient has improved greatly after removal of this tumor. When last heard from he had gained thirty pounds in weight. There has been no recurrence of the growth.

Case II. This case is of interest because of the long clinical course of the tumor and frequent recurrence after operation, the tumor in each instance reproducing exactly the histology of the primary growth.

Mrs. M. A., aged 56, was admitted to Dr. Bevan's service at the Presbyterian Hospital July 21, 1905. She stated that her present trouble began 14 years ago. She then complained of toothache, which would recur periodically, especially when she became chilled. The toothache gradually increased in severity, and as some of the teeth on the affected side were carious, they were extracted. At this time no swelling was noticed. Gradually the face became swollen but no expansion

of the alveolar process of the right maxilla could be made out by intraoral palpation.

In 1898, seven years after the first symptom, an intraoral operation was performed by a dental surgeon, and a mass, together with the surrounding bone, was removed from the posterior part of the right upper maxilla. After two years the tumor, accompanied by severe pain, recurred. Another, but more extensive operation, was then performed and a diagnosis of dentigerous cyst made.

The patient remained well for 3 1-2 years, when the tumor again recurred. Physical examination at this time revealed a mass the size of a hen's egg which extended downward from the gum of the right maxilla posteriorly. This mass has the consistency of cartilage and is covered by a thick, white mucous membrane which is not ulcerated. It is apparently encapsulated. When palpated a parchment-like crackling can be elicited. The teeth are wanting on the affected side. There are no enlarged lymph nodes. An examination of the antrum of Highmore was not made.

July 24, '05, an intraoral enucleation of the tumor was performed, the enucleation being carried wide of the capsule. The antrum of Highmore was opened during the operation as the mass extended well up into the cavity, which was packed with iodoform gauze. The patient recovered rapidly from the operation and there has been no evidence of any return of the growth 4 years since.

Case III. This is of interest as the tumor developed at a relatively early age and pursued an unusually rapid course. I am indebted to Dr. S. C. Plummer of Chicago for the opportunity of studying this case, the history of which he has kindly prepared for me. The family history of this girl, aged 14, has no bearing upon the lesion under discussion. In March, 1908,

seven months before she consulted Dr. Plummer, she noticed a small white spot on the upper jaw over the site of the left canine tooth. She had no pain or other subjective symptoms. This spot gradually increased in size, until at the time she was first examined it was as large as a hickory nut. The growth resembled exuberant granulation tissue. It bled moderately after slight trauma.

On Sept. 20, '08, a portion of the growth bordering on healthy surrounding tissue was removed for microscopical examination. The laboratory report stated that this was granulation tissue. On October 2, '08, the growth was removed together with two teeth and a portion of the alveolar process. The laboratory report states that the growth is a spindle-cell sarcoma. The girl then reported at intervals of one month to Dr. Plummer and until 6 months after the operation the result appeared to be perfect. At this time a small cyst appeared at the site of the operation. This contained clear honey-like fluid and had all the characteristics of a mucous cyst, which did not resemble at all the growth as it first appeared. The cyst was opened and cauterized with silver nitrate, but was soon followed by others of a similar nature which were treated in the same way. After a few weeks a growth 1 cm. in diameter had formed which resembled in every way that which had been removed six months before. A more extensive operation was then recommended, but the patient's friends sent her to a practitioner who had a reputation for curing cancer by medicine. The patient was not seen again until September, 1909, at which time a large tumor had formed which caused the left malar region to bulge prominently and forced the upper lip forward so much that the mouth could not be completely closed. The tumor extended so far to the right that it involved the two incisor teeth on that side. The surface

of the growth had almost the same appearance as when seen two years before. The maxilla was removed September 10, 1909.

These three tumors, although they differ considerably in their clinical courses, have many things in common: (1.) They are composed of a peculiar type of epithelium which is distinctive; (2) although composed of epithelium, they take their origin in the body of the mandible or in the center of the alveolar process of the maxilla, in the latter case invading secondarily the antrum; (3) they are cystic; the cysts varying in size from lentils to walnuts; (4) although composed of what may be considered misplaced epithelium they are essentially benign clinically, never

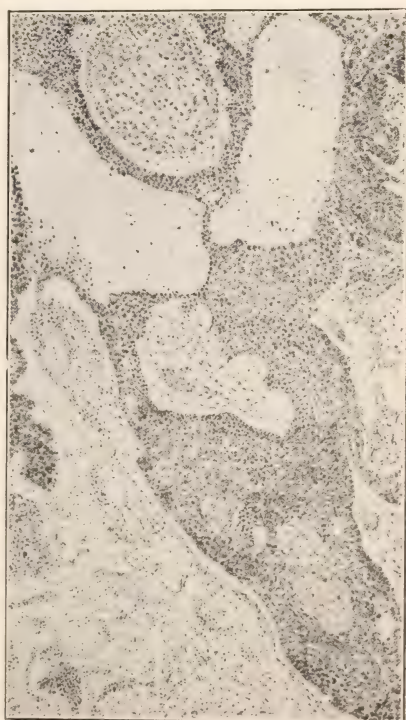


FIG. 9.

Section of cyst removed by Dr. S. C. Plummer. The character and arrangement of the epithelium differs somewhat from that represented in Figure 4. It is apparently of an earlier embryonal period. This probably accounts for the rapid growth and recurrence of the tumor.



infiltrating the surrounding tissues and but rarely giving rise to metastases by way of the lymphatics or blood. These are essentially the characteristics of multilocular cysts of the jaws, reports of about seventy of which appear in the literature.

Multilocular cysts develop much later in life than follicular cysts, which, with the exception of those occurring in connection with the molar teeth, are apt to develop early. The average age at which these tumors appear is about 33. A congenital tumor, supposedly of this type, has, however, been observed by Massin and one in a child of six months by Cootes. They are, however, a tumor of adult life, a clinical fact used by Bland-Sutton as an argument against their origin from enamel epithelium, for he states that if they developed from epithelial vestiges of the enamel organ they would appear at a much earlier period.

Multilocular cysts present a very definite clinical picture. In advanced cases the jaw, usually the lower one, is expanded by a number of large and small cysts which communicate with each other, the growth being covered usually with normal skin or mucous membrane, which is not infiltrated even in cases in which an incision has been made into the growth for diagnostic purposes. Ollier observed an interesting case in this connection. The patient had previously been operated upon for a multilocular cyst and several rudimentary teeth resembling rat's teeth later developed in the line of incision. In some instances as many as 200 rudimentary crowns of teeth have been found in these tumors. Usually these growths are not encapsuled in the sense that they can be enucleated for masses of enamel epithelium invade the bone without infiltrating it like a malignant growth.

The lower jaw is more frequently involved than the upper. This is quite striking when it is remembered that

both periosteal and follicular cysts are more common in the upper than lower jaw. The explanation of the more frequent observance of these growths in the lower than upper jaw may be correctly given by Becker, who believes that these growths, after they extend into the antrum, are often regarded as something else, their true nature being overlooked. Although they may occur in any part of the mandible they are much more common about the molar and bicuspid teeth than anteriorly, supposedly because inflammatory processes, probably the exciting factor in their growth, are more common posteriorly. The cysts may extend well up into the ramus of the jaw. In the first case described above, two large cysts were found in the middle of the ramus when the bone was divided, but as these were apparently single cavities the lining membrane was curetted away.

Slow growth is one of the most important clinical features of these tumors. The average time between the appearance of the first symptoms and the time at which a physician was consulted is  $8\frac{1}{2}$  years in 70 cases cited in the literature. One of the tumors reported by Heath was of 35 years duration, one by Malassez of 23, one by Neubolt of 20, one by Trzebecky of 10 and two by Kruse of 18 and 10 years respectively. The second case mentioned by me had a clinical course covering a period of 14 years.

In most of the cases pain has been a prominent feature in the early part of the clinical course. This has gradually subsided as the tumor became larger, so that later the tumor has pursued a painless course. These growths may become enormous. One of the lower jaw, observed by Bryk, extended as low as the second costal cartilage and had a circumference of 55 cm. Allgayer and Forget have also observed tumors of enormous size.

Histologically these tumors have fairly definite characteristics and should not be confused with any other growths

occurring within the jaws. Notwithstanding the definite structure I believe that they are often regarded as malignant and that operations are refused when the tumor might easily be removed to the great comfort of the patient. The arrangement of typical epithelium in columns with bulbous projections is quite characteristic. The cylindrical epithelium forming the lining of the cyst is, I believe, the most characteristic feature, but the polygonal and stellate cells which undergo colloid and mucoid degeneration to form the contents of the cysts also aid in the identification of the growths. The cell columns reproduce histologically the embryonal enamel organ.

Many different views have been expressed concerning the origin of the epithelium which gives rise to these growths within the jaws. Buchtemann believed that the epithelium was derived from ingrowths of gingival epithelium along sinuses following supuration or extraction of carious teeth. It is hardly possible that squamous epithelium would reproduce tumors of such a complicated structure, and besides a carcinoma would be much more apt to develop in such a case, just as it does in sinuses leading down to osteomyelitic foci when they are invaded by surface epithelium.

Diday, Nelaton and Guibot believed that these growths developed from simple follicular cysts. While this may explain the origin of unilocular and paucilocular cysts, it can hardly explain the origin of tumors the cysts of which greatly outnumber those of the parent follicle. The suggestion that they resemble dermoids developing from invaginations of mucous membrane instead of skin has no anatomic basis.

Falkson in 1879 suggested that these tumors, the epithelium of which reproduces the enamel organ in its development, took their origin from enamel epithelium. This theory was confirmed by the work of Malassez,

who demonstrated that all the epithelial buds which form during development were not used in forming the crowns of the temporary and permanent sets of teeth. Buds or groups of enamel epithelium are normally found in adult jaws, irregularly distributed from the roots of the teeth to the undersurface of the mucous membrane. These groups of enamel epithelium probably correspond to the enamel anlagen found in animals which regenerate a number of sets of teeth. This enamel epithelium which lies dormant in the jaw has been called the paradental epithelial debris and it is from this that these tumors develop. As periosteal or paraodontal cysts often contain enamel epithelium it is quite possible that they also arise from enamel cells which in early stages of development extend downward forming a sheath for the root of the tooth.

As a rule these tumors do not form metastases, the regional lymph nodes being involved only when the cysts become infected. After incomplete extirpation recurrences are common, as in the second case mentioned by me, but the tumor even when it recurs repeatedly usually preserves the essentially benign character of the parent growth. Heath, however, reports a tumor of this kind which lasted for 25 years, and had been operated upon repeatedly with recurrence, from which a round cell sarcoma finally developed which gave rise to extensive metastases, finally causing the death of the patient.

The diagnosis can be made with certainty in most cases, especially when the tumor occurs within the lower jaw. Most characteristic probably is the slow growth, but in those cases in which the tumor is advanced enough to present multiple cysts which can be palpated, there should be no hesitation in differentiating them from the follicular cysts which are usually unilocular; they may, however, be paucilocular, and usually expand the jaw more evenly. The mucous membrane and skin in almost

all instances are freely movable over the growth, unless inflammatory changes have occurred, as the epithelium composing the growth shows no tendency to infiltrate. The X-ray affords in all probability the best means of diagnosis as it reveals the multilocular character of the cystic growth, thus differentiating it from follicular cysts and almost any other growth occurring within the jaw. In tumors involving the upper jaw and invading the antrum, the diagnosis may be difficult if infection occurs, for in these cases the lesion is often regarded as empyema of the antrum. Excision of tissue and microscopic examination of the same affords the only means of diagnosis in such cases as these.

It seems to me that there should be no doubt as to the line of procedure to be followed after the diagnosis of multilocular cyst has been made. Enucleation with a sharp spoon has been recommended by some. It is practically impossible to remove with a sharp spoon all of the growth for solid enamel epithelium which may be easily overlooked, may remain and give rise to recurrence. This is liable to happen when partial resections are performed, as in a case reported by Lettneur, who resected the bone bearing such a tumor, leaving an osteal bridge upon the lower border of the jaw to support the resected ends. The growth recurred in the osteal bridge eight years after the operation, necessitating a more radical procedure. In tumors of the maxilla, when the growth has invaded the antrum a partial resection of the alveolar process with enucleation of the part of the tumor projecting into the antrum may be sufficient. This procedure has evidently been successful in the second case mentioned above, in which the tumor has not recurred after 4 years. Late recurrences are not uncommon, however, with growths of this character. It may be that the X-ray will indicate how ex-

tensive an operation should be performed. One may perhaps be satisfied with resection of the bone immediately adjacent to the growth, leaving an osteal bridge, if there is no evidence of the growth revealed by subsequent X-ray examination.

I am indebted to Dr. H. E. Potter for the accompanying X-ray pictures and to Miss von Stoesser for the drawings.  
100 State St.

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## CAESARIAN SECTION, ABSCESS OF SPLEEN—CASE REPORTS.\*

BY MARK A. RODGERS, M.D., TUCSON, ARIZONA.

Mrs. A., aged 40. Fourth pregnancy. Attack of eclampsia with first. Others normal, but slow.

Had sudden severe hemorrhage about the fifth month, but had no trouble, after resting quietly in bed for a day or two. Two days before operation had another severe hemorrhage on arising in the morning. This was at seven and one-half months.

On the day of operation, 48 hours later, she had another dangerous hemorrhage and was removed at once to the hospital for operation.

Careful examination had failed to reveal the proper location of the placenta, the normal bruit being absent. In fact, no bruit whatever could be heard over any part of the uterus on which the phonendoscope could be placed. The foetal heart beats could be distinctly heard in the normal location for a l. o. a. position. A diagnosis of placenta previa was made and the patient told that her chances for recovery both for the child and herself were better by Caesarian Section than by the older method of procedure. She consented readily to the operation which was performed immediately.

The operation presented no difficulties. The incision was made below the umbilicus and the uterus opened within the abdominal cavity. After the delivery of the child the placenta was found attached to the posterior wall of the uterus, low down, which accounted for my inability to hear the placental bruit. Rupture of the placenta had taken place both within the amniotic sack and external thereto; the baby floating in a curious mixture of amniotic fluid, blood and clots. A hysterectomy was performed because of an unsatisfactory condition of the uterus about the cervical site of attachment. The right ovary was retained. The hysterectomy was supravaginal.

The child required some effort at resuscitation, which was properly attended to by Dr. Whitmore. The mother made a rapid and uninterrupted recovery, walking from her room at the hospital to her carriage on the tenth day.

An incident occurred during this convalescence which seems to me worth relating: About the fifth day of her convalescence, the mother began to fret over the fact that she had no milk and would therefore be unable to nurse her

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child. A sister had given birth to a child a day or two before, and the child had been given her to nurse. But their homes were several miles apart and it would be unsatisfactory. On examining the mother's breasts, I found them empty, but could squeeze out a tiny drop of colostrum after some effort.

Some years ago the writer owned a fox-terrier bitch which gave birth to a litter of puppies and then was seized with eclampsia. For several days she was unable to nurse her puppies; but another bitch of the same breed which I kept in the same kennel, promptly took charge of them, bathed them, mothered them and allowed them to suckle. Within forty-eight hours she had an abundance of milk, quite sufficient for the litter, although she had not been with pup for over two years.

I related these facts to the mother and encouraged her to allow her desire to nurse the child to run riot; brought every influence within my power to stimulate the psychological phases which would influence the function of lactation. The breasts were also massaged and milk exhibited freely. In a few days she was able to nurse the child and has done so ever since.

#### ABSCESS OF THE SPLEEN.

R., aged 20. Mexican. Patient had an attack of Dengue about one month previous to admission. Attack began after apparent recovery from the fever and was accompanied with chills, vomiting and meteorism. There was intense pain in the region of the spleen. The temperature was subnormal.

I made no diagnosis as I was unable to form an opinion as to what condition existed. Abscess of the spleen being so rare a condition, I scarcely considered the possibility of it. Nevertheless, I made the statement before opening the abdomen that we might have some abnormal condition of the spleen to deal with.

The abdomen was opened at the outer

border of the left rectus muscle and the incision carried from the umbilicus to the costal cartilages. On retracting the abdominal muscles the spleen was seen to be adherent to the parietal wall, slightly higher in the cavity than normal, but well behind the ribs. On attempting to separate the adhesions the abscess was ruptured, but, as the abdomen had been packed off in view of such a contingency developing, no harm was done. The abscess contained about a teacupful of greenish pus, which was sponged out carefully and the cavity packed with hot salined gauze. The adhesions were now separated and the organ allowed to retract to its normal position. In order to get proper drainage it was now necessary to resect the ends of several ribs, and the ends of the 8th, 9th and 10th ribs with their costal cartilages, were accordingly removed. The wound was repacked with gauze, a gauze packing placed about the margins of the spleen, walling off the abdominal cavity and an ample drain brought out through a large stab wound, immediately over the sylen.

The patient made a prompt, rapid and complete recovery.

In looking over the literature of operations for abscess of the spleen I find that very few surgeons have been able to report them. There were seven cases reported according to various writers, by Bessel Hagen, up to 1900. According to Moynihan (1906), 3 cases have been reported since—Murphy, Karewski and Eberhards—and the Mayos reported one case last year. In all of these cases splenectomy was performed as the operation of choice. I saw no necessity for removal of the organ in my case.

OPERATION FOR SIMPLE FRACTURE OF BOTH BONES OF THE LEG, AFTER THE METHOD OF ARBUTHNOT LANE.

M., a miner aged 36.

The Radiograph in the case shows the conditions before and after operation. The result has been everything one

could wish for, and demonstrates the absolute necessity both for Radiographic work in fractures and for operation in simple fracture in all cases where there are displaced fragments, irreducible by the ordinary manipulations.

The operation was performed ten days after the accident. Radiograph No. 2 is taken through the cast. No. 3 after the cast had been removed. The wire netting was placed in the cast for strength.

## REPORT OF CASES OF HEPATIC ABSCESS AND ORGANIC STRICTURE.\*

BY A. J. MURRIETA, M.D., JEROME, ARIZONA.

It is not within the scope of these two papers to present anything of startling originality, because I am quite sure that many of you have met with similar cases in your own varied experiences; but to attempt to draw for your consideration a word picture of two cases that have been of more than passing interest to me. These two cases have presented several points of difference from the well-defined paths of etiology and symptomatology, and it is the digressions that are begging your forbearance in the report of these cases.

September 16th, 1906, C. M., age 25, Mexican laborer, came to me in the United Verde Hospital. He had had no previous illness that he could remember, nor could I, after careful questioning, elicit any history of injury. He had been living in Jerome several years and had been in the employ of the Copper Company since his arrival. Previous to this his residence had been in Mexico. Up to September 16th he had been in perfect health with the exception of four days malaise previous to admittance. On that day he came complaining of a severe pain that had developed suddenly twenty-four hours before and just below the anatomical land-mark of the gall-bladder. Examination revealed a small lump the size of a pigeon egg at that point, quite tender on palpation. There was no enlargement of the liver or spleen, the

gall-bladder was not palpable, there was no abdominal rigidity, no vomiting, no history of a chill obtainable, no sweating nor jaundice, and bowels constipated. In fact, his three cardinal symptoms, in their order of importance to him, and it was difficult to get him to deviate from them, were: no inclination to eat, pain in region of the stomach, and a little fever. This tumefaction was quite hard, to a limited extent movable, at no time fluctuating, and seemed to be situated between the skin and the muscle. My diagnosis to all intents and purposes rested with the tumor alone. His temperature a few hours after admittance was 101.2, pulse 82, and this was his highest temperature previous to operation. His morning temperature was always normal, with an evening rise, which, however, was a little lower each evening, till on the sixth day following admission his morning and evening temperature were normal, and at no future date did the thermometer register over 99, except for a few days following his operation. All this time, without any external application his pain became less and less, until at the end of a week only on deep pressure could any pain be elicited.

His treatment consisted in a mercurial cathartic followed by saline next morning; a liquid diet, and on the evening of admission, codia sulph. gr. i. While the pain in a few days left him,

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the lump did not, but neither did it increase in size.

With this lack of symptoms, I was in no hurry to diagnose my case, but concluded that the tumor was a fit subject for surgical intervention, rather believing I would enucleate something, the exact nature of which was problematical.

The tumor remaining unchanged, and temperature normal for eight days, I decided to operate, and on September 30th, 1906, after the usual surgical preliminary preparation, patient was anesthetized, and a two-inch vertical incision was made over the site of the tumor, through the skin and tissues down to the muscle, where it still presented the same appearances that it had externally. It was only after the muscle had been incised that the diagnosis of a hepatic abscess was positive.

Following the peritoneal incision, this was carefully walled off, the abscess evacuated of a pint of almost non-odorous pus, and the cavity flushed and drained. The drain was removed a small bit at a time daily, and the packs the same way. I believe it was my over-enthusiasm in removing the packs, causing me to disturb some of the adhesions, that explains the rise in temperature from the fifth to the ninth day, following my surgical curiosity as to the etiology of certain obscure abdominal tumefactions.

From this day on he made an uninterrupted recovery and was finally discharged November 20th, 1906.

To recapitulate, I would draw your attention to the absence rather of etiology and symptoms.

There was no history of trauma or previous diseases, and while a former resident of a tropical clime, he had lived in his present locality two years.

Pain was confined to the immediate neighborhood of the tumor, when on his back, rendered practically nil by the flexion of his thighs on abdomen, and was not referred to the shoulder.

His temperature on day of admission, and its highest, was 101.2, and was normal on the sixth day.

There were no chills and an entire absence of gastric symptoms.

He may have had a slight hepatic upward enlargement, which possibly explains what little cough he had, but if so this hypertrophy was not sufficient to produce any of the so-called anchovy sputum.

#### REPORT OF A STRICTURE CASE.

F. T., 28, single, presented himself October 18th, 1908, with the following symptoms. He has had three attacks of gonorrhea: first attack three years ago, duration two months; second attack one and one-half years ago, duration six weeks; third attack six months ago, duration same. His second and third attacks were self-treated. He had complicating his first attack, a double epididymitis, no sign of which remains.

His principal reminder, at present, of his visits to "The Shrine," and for which he seeks relief, consists in the morning drop.

He urinates four or five times daily, has no nocturnal frequency, and urine is normal except for shreds and a mucous cloud. A small mucoid drop can be expressed by milking the urethra.

He has a 26 French meatus, a 25 French stricture back of meatus; a 23 French in mid-pendulous (by subsequent operative history and examination a 26 in bulbo-membranous urethra) and a 22 French enters the bladder.

It was my intention to use the electrolysis method of dissolving the strictures, with the olivary pointed bougies, as the feel by the searchers led me to believe that I had a very fairly organized set of strictures with which to deal.

His 26 meatus necessitated a meatomy in the future, so I concluded to dilate with Van Buren sounds to that number, do the meatomy, and then proceed as first outlined.

Three days after the preliminary examination, I began the dilations, using the sounds every third day, following each with a 1 to 20000 permanganate Janet irrigation, and using a daily permanganate irrigation besides. In nine days I was able to pass a 23-25, and I began to realize the resisting powers of the obstructions.

November 1st, the meatus, and stricture back of it, were split under local anesthesia of cocaine in adrenalin, with very little immediate post-operative, or subsequent hemorrhage. After the meatus wound had healed, I inserted the sounds a few times, but could not use anything larger than a 25. Their resistance and density now suggested internal urethrotomy, but rather would I try another course, their division with the MacGowan-Fort instrument, and this was done on November 28th, on which day a 27-30 was passed through the perineal stricture without any trouble, and yet immediately following the MacGowan-Fort instrumentation, it was only with quite a little difficulty that a 26 sound could be passed. I waited for a few days, irrigating daily in the interim, and December 5th, 1908, used the 24-26 olivary pointed electrolysis bougies, quite easily, passing both through the perineal stricture. Four days later I could only use the 24 bulbous bougie, the 26 refusing to pass the peno-scrotal junction. In six more days I could only pass a 22 French sound and three days later the obstruction was such that only a 20-21 French would pass with a moderate degree of pressure.

It was now observed that there was a very hard cartilaginous ring in the mid-pendulous urethra. I say now, because while this induration could be felt prior to this time, when a sound had been introduced, it could now be felt through the phallic tissues without the presence of an instrument in the urethra.

Local applications endoscopically of a 5% aqueous thiosinamine solution were productive of negative results, and the internal administration of the drug had no effect on the induration, though kept up for three months.

January 1st, 1909, daily dilation with the sounds was instituted, beginning with 18-20 French, and in five days it was possible to pass a 20-21-22 with a moderate exhibition of force, a 23 was barely passable, and now a new phase of the case presented itself. While a 23 was passable, it was only withdrawn with a great deal of difficulty, a spasmodic contraction grasping the sound in a vise-like grip, threatening dismemberment in its removal. This vise-like grip showed itself at the sight of the cartilaginous obstruction, and its retentive powers were truly marvelous. It made no difference whether the sound was left in the urethra one minute or five, the grasp was always the same, and it was only after slipping the instrument back and forth a few times, that this condition seemingly relaxed and permitted the easy removal of the sound.

That it was not the ordinary spasmodic stricture was shown by the fact that with the urethra completely anesthetized the same condition obtained.

As I was now leaving on a vacation, I turned the case over to Dr. Kaull, my associate. He handled the case for the next five weeks, and was able in that time, with care and patience, to advance to a 23-24, but always with the same annoying vise-like gripping of the sounds. The induration had lessened in about two weeks, but was still quite noticeable.

On my return in February, internal urethrotomy as the best mode of procedure was suggested, but was so very obnoxious, and for other reasons I consented to procrastinate, and this was done until the end of March, using the Kollman dilator in conjunction with the sounds. In that time an advance had

been made to a 25 French, and 27-28 with the dilator. But notwithstanding the Kollman dilation nothing larger than the 25 was passable in sounds. The futility of dilation had now appealed to the patient and he consented to operative measures.

April 2nd, 1909, under local anesthesia an internal urethrotomy was performed to a 31 French. The blade in passing through the induration could be distinctly heard. The patient was put to bed with continuous drainage. This was removed in four days and a 28-30 passed and withdrawn without any trouble. These two numbers were passed daily for two weeks, and since then bi-weekly, as there was a slight tendency to contraction.

The sounds now drop in of their own weight and the induration has completely disappeared, as has also a little inclination to a downward chordee.

My object in reporting this case, gentlemen, is to point out to you the limits to which some unscrupulous strictures

will go. Here we had to start with a nice, middle-aged, apparently well behaved narrowing of the urethra, which suddenly became an exceedingly fussy, irritable disposition, well characterized to harrow, and bring gray hairs to the head of the budding "G. U. ologist," and all this after the most careful and kindest treatment, such as any of you would accord a newly acquainted urethral neoplasm. The exceedingly irritative and rapid contractive qualities are an idiosyncrasy worthy of note, which mayhap were induced by the bulbous electrolytic coaxings. But I have seen much younger and more tender such growths yield happily to this mode, and cannot condone such conduct along these lines. I believe it is an accepted genito-urinary axiom that an instrument left in contact with a stricture will spread this occlusion, thus allowing the passage of the next larger size. But you have just listened to the report of a case that would do mostly anything but conform with rules and regulations.

## SOME OBSTETRICAL CURIOSITIES.\*

BY W. V. WHITMORE, M.D., TUCSON, ARIZONA.

A residence of seventeen years in Tucson has given me something of an experience in obstetrical work. In fact, the records show that, during the past three years, one-third of the birth reports of that city bear my signature.

In selecting, for this paper, some of these cases, which present unusual features, it is not my intention to include those most difficult or those of the highest professional interest. For it has been my good fortune to have, on the average, very simple and easy cases—compared with those which some of my confreres have had. I wish simply to enumerate some things which are out of the ordinary course of events.

Feb. 28, 1899, I was called to attend Mrs. S. (colored) in confinement. Everything connected with the case was normal. She stated that she was 35 years old and that the baby was her twentieth child.

Nov. 20, 1900, at 7 p.m., I was called to Barrio Libre—our Mexican district. I there learned that at one in the afternoon Mrs. B. had begun to have children and she kept it up till she had three and one placenta. The second placenta was undelivered. After attending to that, I had the children brought in—as I wanted to be "shown." The girl and one boy weighed 5½ pounds each and the other boy 6 pounds.

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Mar. 24, 1906, I attended Mrs. H. in confinement. Feb. 8, 1907, I attended her again. This was 10½ months after the former delivery—certainly much sooner than cases average.

May 24, 1906, I attended Mrs. M.—a former nurse. This was a case to which I fell heir, when my office partner, Dr. Lennox, left Tucson for Helvetia. I saw the patient only once—a month before delivery. At that time she remarked that she was not at all large. As she was sitting on the side of a couch and the clothing was loose, I did not properly appreciate her statement. When summoned, I discovered that she was really about average size at six months. As the case progressed and the cervix dilated, all I found presenting was the placenta. Some cysts separated and were removed. I then summoned assistance and under anesthesia delivered a ¾ developed placenta filled with cysts. I do not think I have ever seen a more disappointed woman than Mrs. M. But April 8, 1907—10½ months later—I attended her with more satisfactory results.

With only one case have I had any connection with less results than my first experience with Mrs. M. Some eight years ago I was asked to examine a woman who thought she might be pregnant. She had formerly been a woman of the town, at Bisbee, where she had married a consumptive morphine habitue. She had not menstruated for three months. She had been examined by Dr. Fenner and he thought her, so she stated, three months pregnant. After an examination, I gave my opinion that she was probably not over six weeks pregnant—if at all. She soon moved to Phoenix and later consulted Dr. Plath. Having more confidence in the opinion of the Tucson doctors than he has now, he accepted her pregnancy as a matter of course. Her friends of the half-world were informed of the "prospects" and began to respond

with presents, etc. Time passed and no heir appeared. Finally Drs. Plath & Duffield made an examination and found—not even a cystic placenta. Such is the withering effect of the Salt River Valley.

Nov. 13, 1906, I was called to attend Mrs. W. I had waited upon her some fifteen or twenty times in the previous dozen years. I had barely time to wash my hands when the child was delivered. As I threw back the bed-clothes, I saw the child lying between the thighs with the membrane unruptured. I literally had to "claw" some time before I was able to get through the placenta. The child had apparently been dead for a few days. While I was cleaning up, Mrs. W. complained of severe pains. I assured her that her numerous confinements justified her in having very severe after-pains. Just as I was about to leave the room, an unusually loud cry from her caused me to investigate and I found another child, alive, lying between the thighs—with the membranes unruptured. I had just as much difficulty in "clawing" through this as I did the other placenta.

Dec. 17, 1906, I attended Mrs. W. when she was delivered of twins. I learned her history. She was married Nov. 26, 1902. Sept. 6 and 7, 1903, she gave birth to twins—one being born just before midnight and the other after. Mar. 26, 1905, she gave birth to a child. So with the twins I delivered she had five children and had been married only four years and twenty-one days. No race suicide here.

Along this line I will mention two other cases—though out of their chronological order.

Some two months ago a woman consulted me in regard to a possible pregnancy. Like many women she did not take kindly to the thought of another child. I knew she had several children but was quite unprepared for her reply to my inquiry of how many children she

had had—which was “eleven.” As she was a young-looking woman, I asked her age, which proved to be 28. She was married at 13 years and 9 months.

In February of the present year I attended Mrs. B.—one of our few Mormon women. This was her eleventh child. At one of my visits her mother-in-law was present and told me of her 16 children, her 110 grandchildren and some 25 or 30 great-grandchildren—a total of 150 or 155 descendants—with several counties yet to be heard from. This woman was not 70 years old.

Feb. 2, 1907, I attended Mrs. E. When the child was born, I noticed that the cord was around the neck. I began

to unwrap it and when I was through I found that there were six complete turns around the neck.

The smallest child with which I have had anything to do I saw twice last summer during the illness of the attending physician. It was a seven-months baby and weighed 3 pounds at birth. The nurse told me afterwards that it made no gain in weight whatever till it was six weeks old.

Since writing the above, only a few days ago, I was called to administer chloroform in a case of uremia. A child just entering the eighth month was delivered by forceps. It weighed just 2 pounds and was doing nicely when I left Tucson.

## RABIES AS A DISEASE OF THE NERVOUS SYSTEM.\*

BY CHARLES LEWIS ALLEN, M.D., LOS ANGELES, CAL.

While rabies belongs to the class of acute infectious diseases, its poison seems to exert a selective action upon the nervous system, upon which its noxious influence is most apparent and upon the changes produced in this part of the organism, the fatal outcome of this disease is directly dependent.

In order to realize this, it is only necessary to consider briefly the mode of distribution of the poison after it enters the body and the changes which it has been found to produce, the most striking of which are located in the central nervous system. Entering the body through the bite wound, the infectious agent at once manifests its preference for nervous tissue and seems to travel towards the center along the sheaths of the nerves. Hence the probability of infection following the bite of a rabid animal seems to depend, not so much upon the vascularity as upon the abundance of the nerve supply of a part, and since progress along these channels is

slow as compared to that by the vessels, the long incubation period of the disease may possibly depend upon this peculiarity. The known fatality of bites about the face and head are also explainable upon this ground.

It has been shown experimentally that if, after the spinal cord has been cut across in the dorsal region, inoculation of a hind limb with the poison of rabies is performed, and a suitable incubation period is allowed to elapse, the part of the cord below the section becomes virulent, while that above does not. The particular location of the lesions of which has seemed, at least in some instances, to bear a relationship to that of the infecting bite, Schaffer having found profound changes in the anterior horn of the spinal cord in the lumbar region of the corresponding side, in a person bitten upon the leg, while in another bitten on the arm, the cervical region of the cord of the same side was specially affected. According to Golgi,

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in its pathological anatomy rabies is to be considered as an acute encephalomyelitis.

The most striking pathological changes consist in hyperemia and dilatation of vessels, smaller and larger hemorrhages, round cell infiltration into the vascular sheaths, and about and among the groups of nerve cells, especially in the bulb, local areas of softening, degeneration of nerve cells and meningitis. Until the description by Negri of the bodies which have since borne his name, the lesions mainly relied upon for diagnosis were certain changes in the ganglia upon the spinal and cranial nerves on the one hand, and in the medulla and pons on the other. The former consist in dilatation of vessels, cellular infiltration into the ganglia and especially in a proliferation of the cells lining the capsules in which the large nerve cells lie, in advanced cases these nerve cells disappearing and the ganglia presenting groups of cells arranged somewhat like those of an alveolar sarcoma. In the dog, the plexiform ganglion of the pneumogastric nerve has been found the most accessible and most likely to show the characteristic changes. In their full development they are most likely to be found if the animal is not killed at once, but is kept until he succumbs to the disease. The second change consists in a more or less characteristic heaping up of round cells, in and about the nerve cell groups of the medulla and pons, particularly in the cranial nerve nuclei, presenting an appearance which led Babes to give it the name of "rabie tubercle."

While these changes cannot be considered as specific, their occurrence in connection with the clinical symptoms of the disease is strongly confirmatory, and before the discovery of the Negri bodies, they were relied upon in determining whether persons bitten by a given dog should or should not be subjected to the Pasteur treatment.

The particular object of this paper, however, is to endeavor to show the relationship of the symptoms of rabies to the lesions found in the nervous system.

It will be remembered that rabies occurs in two forms, the more familiar and classical "furious type" and the less striking "paralytic form" or "dumb rabies." That the latter is less dangerous is evident, as the animal in this case does not bite—cannot do so. To this fact is attributed the rarity of human rabies in Turkey, where the disease is said to be endemic among the large dog population, usually in the form of dumb rabies. After experimental inoculations in rabbits the paralytic form is the most frequent. In man both forms are observed, the latter, however, infrequently.

The change in character, apparently with apprehension and gloomy forebodings, during the stage of invasion of the disease, described equally for man and beast, and the later furibund delirium, in which the dog madly runs and bites at everything which comes his way, until he falls exhausted, constitute a real insanity which can readily be considered a toxic delirium. That hallucinations and illusions are present at this time the actions of the animal make quite plain.

In man delirium with hallucinations, illusions and delusions may be present, but it is not as a rule preponderant, is broken by lucid intervals, and the terrible distress and agitation observed, is not unnatural in a condition so fraught with real agony and which even the dullest must feel is but a forerunner to speedy dissolution. The spasms especially of the muscles of respiration and of deglutition, which are provoked by efforts at swallowing or even by a flash of light or a draught of air and which cause the "fear of water" so characteristic of this disease, are readily explainable by the increased irritability of the nerve centers, in which the poison of the disease is setting up intense hyper-



emia and exudation, and the later paralytic phenomena stand in relationship to the destruction or at least to the throwing out of function of the nerve cells of important centers.

That the chief symptoms are in connection with the cranial nerves, and that death is the result of paralysis of the respiratory and vaso-motor centers appears as a matter of course, when the predilection which the poison seems to have for the region of the brain axis is remembered.

In the paralytic form, the victim is overwhelmed by the toxine without any antecedent period of irritation.

In some cases the poison acting mainly upon the spinal cord, the clinical picture is like that of the acute ascending paralysis of Landry, with which disease rabies may occasionally be confounded, when, as is sometimes the case, the matter of the dog bite has been forgotten. Rabies presents a good many points of similarity with tetanus and the diagnosis between the two diseases may at times present some difficulty. The incubation period of rabies is, however, much longer, the character of the spasm is different, trismus being wanting and there is an increased secretion of saliva not seen in tetanus.

Hysterical patients sometimes develop symptoms supposedly those of rabies, such as barking, snapping and frothing at the mouth, with a feeling of constriction in the throat ("globus"), and where there has been an antecedent dog bite, such a case may give rise to serious apprehension. There is wanting, however, the real respiratory spasm, the symptoms vary in intensity, and if the patient can be tranquillized, speedily improve. On account of the resemblance of the furious form to acute mania, patients with rabies are occasionally sent to institutions for the insane. In fact, as already stated, there is sometimes an acute delirium with hallucinations, illusions and delusions. Gowers

mentions as a curious fact that the delusions present sometimes have a connection with a dog: the animal is under the bed, the patient thinks that he himself is a dog, and begs to be restrained to keep him from biting people, etc. This, he says, has occasionally been observed in cases where the victim was unaware of the nature or cause of his disease.

In the absence of a definite history, the diagnosis between acute mania and rabies might for a time present some difficulty, but the onset of the spasmodic phenomena should render the nature of the case clear, as these are not a feature in mania, and as Gowers says, in a case of mania, the patient is never in a desperate condition at the end of a few days. This last statement, however, the writer can accept only with some reserve as conditions of acute delirious mania sometimes run a surprisingly rapid course.

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#### PNUEUMONIA.

*The Chicago Health Bulletin* for November 21 calls attention to the increasing peril from pneumonia. As a preventive of this disease, it says: "Avoid impure air, and overindulgence in food and alcohol." First-rate advice. Another good thing is, at the first sign of the disease call in as quickly as possible a real doctor, not one of the kind who thinks there is "no treatment for pneumonia."

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#### WHY THE DIFFERENCE.

The surgical instrument made by the cutler is a legitimate subject for monopoly. A copyrighted book treating of medical matters is also legitimate. A thing actually used as a medicine, made by the pharmacist, maybe an actual valuable discovery, is not such a subject, but its ownership is vested in the whole nation, as soon as the nation finds out that the discovery has been made.

# SOUTHERN CALIFORNIA PRACTITIONER

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## EDITORIAL

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### A REPORT ON THE MEETING OF THE COUNCIL ON MED- ICAL EDUCATION OF THE AMERICAN MED- ICAL ASSOCIATION.

In many ways this meeting, held on February 28th to March 2nd, 1910, was very remarkable. The programme of each session was interesting and instructive, and the attendance of men, with an unselfish desire to help medical education, was large.

The Council's work has only been in existence the past six years, and at this gathering were clearly demonstrated its results in the improvement of medical standards, which was the most encouraging and satisfactory sign of what has been accomplished.

In the investigation of medical schools during these six years the situation of medical education has considerably changed. The number of medi-

cal schools in this time has decreased from 160 to 140. Many of the present 140 medical schools in this country have made extensive improvements during this time, much of it having been accomplished in the past three years. Other colleges have merged together, and others have become part of state universities, or strongly endowed universities.

From what has been shown us at this meeting, the present number of medical schools in this country is still too large and must be reduced as the present process of medical evolution progresses. The President of the Council said that this number should be reduced to sixty or seventy, which would be quite sufficient to supply our country with practitioners.

Of the present 140 schools, about seventy, or one-half of them, are teach-

ing medicine and surgery in an acceptable way. Others must improve their instruction and methods to come up to the proper standard. This can only be done by keeping up a campaign of education, for it is quite as necessary to get the support of the public as well as the support of the state boards, the profession, and the medical schools. It is, of course, assumed that the medical profession understands the difference between trained or intelligent medical care, and the untrained or ignorant; but as yet the public does not recognize the difference. Not until the public understands this matter and situation, and will demand the best trained medical care, will our medical education and standards be what they should be, and what the governmental powers in Europe have already made them.

State boards should have sufficient power to act together or separately, so that any unsatisfactory school could be made to come up to the standards, or their graduates not be allowed to apply for a license; which would mean that unless unsatisfactory schools improved as they should they would go out of existence. Many ways were shown how the schools that are not acceptable could improve their methods so as to come within the lowest acceptable standards, but every discussion in this feature gave clearly the fact that the future medical schools of this country must become an integral part of a university.

That the university medical school is at last taking or being given its right place and receiving the highest support, was clearly demonstrated at this meeting, as well as the fact that the evolution in medical education is progressing

toward the standard of the European university medical school, and that our university authorities now recognize and acknowledge that the university should be responsible in every way for their medical schools. The university should elect the faculty, set the standards, direct the instruction, be responsible for the ideals, and give the necessary financial support.

It was with a feeling of much gratitude that the delegate from California was able to be present at this meeting, and the greatest satisfaction to have heard such sentiments expressed by at least three university presidents. This is the only way the public will finally be properly served and prevention of disease assured. President Pritchett, in his address, "The Obligation of the University to Medical Education," was very strong on these points, and both he and President Schurman, of Cornell University, felt that every member of the faculty of medicine in a university must receive sufficient remuneration so that he could give his whole time to teaching, instruction and research.

It is important to have a single licensing board for each state, since this board is the only legal way to prevent ignorant or untrained men from being a menace to the public health. Fortunately, most of the states have a single licensing board, although too often it is a badly mixed licensing board, and some states have as many as four separate boards.

Since all who treat disease must first be able to make a diagnosis, no college who sends graduates to the state board should have lower educational standards or training than that required by the



state board. To license anyone of a sectarian school below that standard is discrimination against the regular medical practitioners. It is not right to admit them on any other grounds or with any exceptions as to a special form of treatment, because the results have shown that their future work in relieving suffering and disease is not confined to their training or their special brand of treatment.

The state boards can best serve the public and give justice to practitioners by having a sufficient standard and demand that every college, which has the right to send applicants for a license, be acceptable, or be doing work equivalent to that standard.

Dr. Bevin, President of the Council, gave a clear idea of what the study of modern medicine today should demand, which is what every college in the country should strive to attain: First. For preliminary education, a four years' course in a high school, and further, at least one year in the pre-medical sciences of physics, chemistry and biology, which may be taken in the college of arts, or in the medical school. Second. A four years' course in the medical school, two years in the laboratories of anatomy, physiology, pathology and pharmacology; and two years in clinical work in medicine, surgery, obstetrics and the specialties. Third. One year as an interne in a well-equipped hospital.

W. JARVIS BARLOW.

### AMEBIC DYSENTERY.

Controversies over location for a Panama Canal Exposition brings to our notice the nearness of completion of this gigantic project. Tropical medicine

presses for recognition upon the profession in this section of our country. Timely reviews of therapeutics of amebic dysentery in the *Therapeutic Review*, March 15, 1910, are of especial interest.

Simon (*Journal A. M. A.*, Nov. 9, 1909), gives detailed directions for the administration of ipecacuanha. Failure to get results with ipecac he attributes to improper attention to method in exhibiting the drug. Two weeks absolute rest in bed, with diet restricted to liquids or light solids is necessary in beginning treatment. An initial purgative of castor oil is given, then each evening after a three-hour fast pills of ipecac, coated about one-eighth of an inch with phenyl salicylate. A start is made with 40 or 60 grains, depending on the severity of the infection. This amount is reduced 5 grains nightly until 10 grains is reached, when the dose is continued uniform for two weeks more.

A phenyl salicylate coating of the pills effectively prevents nausea. The use of the drug in this way has appeared to him almost in the light of a specific. Physiologically we do not know how ipecac acts in these cases. Simon believes it plausible to infer, however, that ipecacuanha principles, through some intestinal changes becomes inimical to the life of the amebas. Combined with the treatment outlined saline enemata is a satisfactory and non-irritant bowel wash. As an after treatment, nitrate of silver solution may be indicated as a curative agent for the still remaining ulcerations.

Deeks and Shaw (*Medical Record* of Nov. 13, 1909) advise the following treatment: Rest in bed, a milk diet,

bismuth sub-nitrate, a teaspoonful every three hours, and saline irrigations. Marked improvement in from three to ten or at most fifteen days follows this course. The bismuth acts, first, as a mechanical sedative and astringent, and second, as an active antiseptic. To the latter feature much importance is attached. It thus destroys or inhibits bacterial fermentative and putrefactive processes which favor the growth of amebae. The authors have never seen on the Isthmus the toxic effects ascribed to bismuth sub-nitrate when administered in large doses.

Should toxic symptoms appear, surgical interference is necessary and wide-open cecostomy by Dr. Herrick's method is recommended. All measures increasing the patient's natural resistance render him less likely to suffer relapse.

Opium occupies a place in neither of the treatments outlined. It is rejected because it interferes with the production of enzymes and enzyme digestion, and because it lessens peristaltic action of the bowel, thus favoring retention of toxic products which are harmful in sound mucous membrane where elimination is indicated.

C. W. D.

### STATE BOARD OF EXAMINERS.

The California State Board of Medical Examiners met in the office of Dr. C. L. Tisdale, the secretary, 929 Butler Building, San Francisco, at 11 a.m., Monday, April 4th. The members of the board were all present except Dr. Geo. F. Reinhardt, who is in Europe. It being time for the annual election of officers the following were unanimously elected: President, Dain L. Tasker;

vice-president, J. Henry Barbat; secretary, Charles L. Tisdale; treasurer, Charles Clarke.

The election of an osteopathist as president of a state board of medical examiners, in which half the members are of the regular school, is something unique in the history of medicine. It was one of the members of the regular school who placed him in nomination. The new president has been a member of the board for four years. The last year he has been vice-president. His intelligence, fairness and honorable bearing have gained for him the thorough confidence of all his fellow members regardless of school of practice.

At the December meeting of the board a resolution was passed, requiring those who failed in an examination, but who received 80% in one or more branches, to be re-examined only in those branches in which they had received under 80%, if they came up for re-examination within one year. An opinion was rendered by Mr. Kaufman, attorney of the board, that said resolution was contrary to law and therefore void.

The board was in session for several hours. The questions in the ten branches were gone over carefully by the whole board. This innovation of this board is an excellent one.

The board then adjourned until 8 a.m. Tuesday, at the Knights Templar hall, corner of Sutter and Steiner streets. At this meeting the board met the applicants for the first time. There were 90—76 men and 14 women.

We were deeply interested in a blind man. He is a fine looking young man

who had made a success as a dentist and then lost his sight. The board allowed him to have an amanuensis, and substituted other questions for those requiring the use of the microscope.

The board through its attorneys is developing a comprehensive plan for the prosecution of quacks.

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### THE ANNUAL MEETING OF THE STATE MEDICAL SOCIETY.

The fortieth annual meeting of the State Medical Society will convene at Sacramento on Tuesday, April 19th, and last through Wednesday and Thursday. The headquarters will be at the Hotel Sacramento. Scientific meetings will be held in Elks' Building. Railroad rates are as usual, one and one-third fare for

the round trip. The Southern Pacific Railroad offers especially good schedules and accommodations.

It is to be hoped that a large number of southern delegates will attend this meeting. There is considerable talk of Del Monte or Santa Barbara for next year's meeting. A strong movement has started in favor of Dr. John C. King of Banning, a member of the Riverside County Medical Association, as president for the coming year.

Should this result in success, Dr. King would be the eighth president of the State Medical Society, since its founding years ago, to come from south of the Tehachapi. The Los Angeles County Medical Association started the campaign in his favor by endorsing his name some weeks ago. Here's to a successful outcome of the effort.

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## EDITORIAL NOTES

Dr. A. T. Covert has located in Long Beach, Cal.

Dr. W. W. Apple has located in El Centro, Imperial County.

Dr. A. I. Fraser, formerly of Norwalk, has located in Bakersfield.

Dr. A. B. Coblenz of Santa Maria was recently called to Los Angeles.

Dr. W. J. Chambers has resigned from the Los Angeles Board of Health.

Dr. P. M. Savage recently lectured before the pupils of the Chino High School.

Dr. A. J. Murrieta of Jerome spent the last week in March visiting relatives in Los Angeles.

The New Ramona Hospital of San Bernardino is a commodious building of the mission type.

Dr. R. A. Kirkpatrick of Mazella, Mexico, has been taking a vacation in Los Angeles.

The directors of the Seaside Hospital, Long Beach, are contemplating the erection of a new hospital.

Dr. W. B. Sawyer of Riverside, one of the well-known sons of Harvard, is being mentioned for coroner.

Dr. D. F. Howell, of 315 Whitney St., Los Angeles, was killed about midnight March 29, by a taxicab.

The average heart-beat of a mouse is 670 per minute, of a rabbit 200, dog 90, horse 40, and elephant 30.

Dr. J. T. Iles of Indio, California, has retired from practice and is devoting his time entirely to his extensive fruit ranch.



Dr. D. W. Edelman of Los Angeles was recently sued for \$25,000 damages. The judge promptly ordered the jury to bring in a verdict in favor of the doctor.

Dr. Homer Orland Bates of Long Beach died from paralysis on March tenth. Dr. Bates was 63 years old and had been practicing in Long Beach for about six years.

Dr. M. Ellis of Los Angeles, resident physician of the California Hospital, who has been very ill for several months, has entirely recovered and is on duty as of yore.

We have received from Stanley Stillman, San Francisco, the following reprints: (1) Hypertrophic Stenosis of the Pylorus in Infants. (2) Surgery in Infancy.

The PRACTITIONER is in possession of an article on Adeno-Carcinoma of the Corpus Uteri and would be pleased to receive information as to the name of the author.

Dr. E. A. Buehler, formerly of Spencer, Iowa, has located in Whittier, California. Dr. Buehler graduated from the Chicago Homeopathic Medical College, class of 1904.

Dr. B. Mosby Smith, who has been ill for the past few weeks with typhoid fever, is convalescent and will resume his practice in a short time, having his office at 314 W. 61st St., corner Moneta avenue.

Dr. E. C. Buell of Los Angeles, formerly president of the Homeopathic State (California) Medical Society, is now en route around the world and we all wish him a satisfactory trip and a safe return.

Dr. William E. Carter was recently appointed assistant police surgeon at the Los Angeles Receiving Hospital. Dr.

Carter graduated from the Los Angeles College of Physicians and Surgeons, class of 1908.

Dr. Anita Newcomb McGee, president of the nurses' branch of the National Red Cross Society, has been spending some time in San Diego. Dr. McGee is, to say the least, one of America's most useful women.

(1) Accidental Perforation of the Uterus and Vagina, and (2) The Present Status of Irrigation and Drainage in Obstetric and Gynecologic Operations, are the titles of two monographs by Dr. Horace G. Wetherill, Denver.

The daily papers announce that the committee of arrangements of the American Institute of Homeopathy has decided to hold the annual session beginning July 10th in Pasadena instead of in Long Beach, the place first chosen.

Dr. A. J. Rosenberry, who moved from Jerome, Arizona, to Benton Harbor, Michigan, about a year ago, has returned to Arizona and is now in charge of the Bacon Hospital in Tombstone, during Dr. Bacon's absence in Europe.

Dr. Charles W. Foster, a graduate of the University of Southern California and Senorita Isobel S. Esquirel were married March 3rd in the City of Mexico. They will be at home to their friends after August first in La Paz, Bolivia.

Dr. J. H. Rice, aged 83 years, died in Pomona, California, Monday, March 21. Dr. Rice was born in Enosburg, Vermont, and graduated from the old Burlington Medical College. He was an army surgeon during the Civil War, and then practiced medicine in Iowa for many years.

Dr. Chas. W. Bonyngue of Los Angeles recently resigned as assistant police surgeon in order that he might go

to Berkeley, where he now has charge of the laboratory conducted by the State Board of Health. Dr. Bonyngé is particularly adapted for his new position.

Dr. Wm. D. Cutter, secretary of the Cochise County Medical Society, of Bisbee, was called to New York City early in March to see his mother, who was critically ill. Dr. Cutter expects to return to Arizona in time to attend the annual meeting of the Arizona Medical Association in April.

Dr. Beckett was recently the victim of a suit for \$10,000 on account of an alleged X-ray burn. The burn—if there was a burn—was by the physician to whom Dr. Beckett referred the case in order to secure a picture. Judge Bordwell, before whom it was tried, dismissed the case when the plaintiff had presented his testimony.

Dr. John F. Groover, of Norwalk, California, is taking a much needed vacation. Meanwhile Dr. Lindley F. House is attending to his practice. Dr. House formerly practised in Sinking Spring, Ohio. He graduated from the Medical Department of the University of Cincinnati (medical college of Ohio), class of 1885.

Dr. and Mrs. F. W. Thomas entertained the Pomona Valley Medical Society at their home in Claremont Tuesday evening, March 22. Dr. Geo. L. Cole, professor of Applied Therapeutics in the Los Angeles College of Medicine of the University of California, was the guest of honor and delivered an address on "Some Phases of Domestic Medicine."

Four city physicians were recently appointed by the Los Angeles board of health at its meeting. They were Dr. E. R. Pascoe, who now holds the position of city physician; Dr. J. S. Derick, Dr. Charles T. Palmer and Dr.

Charles L. McGee. These are all young physicians and they are expected to devote only a portion of their time to caring for the city's indigent sick. For this service they will receive \$25 a month.

Work has just been started on the first wing of a new hospital building for the Loma Linda sanitarium near Redlands to cost about \$15,000, being the forerunner of building at the institution during the coming year that will cost about \$125,000. In the summer work is to start on a new college building to house the Loma Linda Medical College and the College of Nurses, and this will cost about \$75,000, the expenditure having been ordered by the general convention of the Adventist church.

The Los Angeles County Medical Association has decided to extend an invitation to the American Medical Association to come to Los Angeles for its annual meeting in 1911. It is desired, however, to have the invitation to come jointly, from the County Medical Association, the Medical Society of the state of California, the Los Angeles Chamber of Commerce and the Pasadena Board of Trade. An invitation committee has been appointed by the county organization, consisting of Dr. H. Bert. Ellis, chairman; Dr. O. O. Witherbee, Dr. W. W. Richardson, Dr. Fitch C. E. Mattison, Dr. Albert Soiland and Dr. George H. Kress. It is believed, if the proper effort is made, the American Medical Association can be brought here next year, and with it will come other affiliated organizations.

The state law making vaccination obligatory for all children in the public schools of California, was declared unconstitutional by Judge Lucas F. Smith, in a decision in the Superior Court of Santa Cruz county March 22. The ruling was given in a decision on

the petition of the State Board of Health for a writ of mandamus against the public schools in Watson. Judge Smith held that as the law does not apply to children in private schools, it is to be construed as class legislation. Rich parents, he declares, could send their children to private schools, thus escaping the application of the law, while those less fortunate would be compelled to conform to it. School trustees are held to be the sole judges as to the necessity of vaccination. Dr. W. F. Snow, secretary of the State Board of Health, says the case will be appealed.

Dr. Irvin J. Hickman, College of Physicians and Surgeons, Chicago, class of '95, has recently taken the position of Medical Director of the Pasadena Hospital. Dr. Hickman formerly practiced in Hinckley and Belvidere, Ill.

The annual conference of the Seventh Day Adventists of the United States held recently at Des Moines, Iowa, voted unanimously to establish a medical school with a five years' course at the church sanitarium at Loma Linda. This beautiful spot is three miles from Redlands and seventy miles from Los Angeles. The argument that finally decided the conference to establish the school at Loma Linda was the

ideal climate of Southern California. We trust that this new medical school will prove a credit to the profession and to the church that is establishing it. One great aim will be to thoroughly equip medical missionaries.

The Riverside County Medical Society held its regular monthly meeting Monday evening, March 14, at the office of Dr. H. A. Atwood. The program consisted of a paper by Dr. Karl Sleeper on "Empyema" and a discussion of the subject of "Cancer of the Stomach and Neuroses of the Stomach," by Dr. C. W. Girdlestone. Both subjects were freely discussed by the members and the meeting was a most interesting and profitable one. The society had as a guest Dr. George L. Cole of Los Angeles. Dr. Cole took part in the discussions of the evening. Following the program the society adjourned to the Rubidoux Grill, where a sumptuous banquet was served, with Dr. W. B. Payton as host. Those present were: Dr. Geo. L. Cole of Los Angeles, Dr. W. L. Holt of Banning, Dr. Louise Harvey Clarke, Dr. C. W. Girdlestone, Dr. H. R. Martin, Dr. E. H. Wood, Dr. J. H. Holland, Dr. H. A. Atwood, Dr. G. E. Tucker, Dr. W. W. Roblee, Dr. W. B. Payton, Dr. Karl Sleeper, Dr. A. W. Walker, Dr. W. B. Sawyer, Dr. C. Van Zwalenburg.

## OF GENERAL INTEREST

### QUESTIONS CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS, SAN FRANCISCO, APRIL 5, 1910.

#### CHEMISTRY.

1. What is the poison in most headache powders? Its effect? Antidote.
2. Mention six elementary substances commonly used in their pure state in medicine.
3. What does the presence of an abnormal quantity of chlorine in drinking water indicate?
4. How would you detect the presence of bile in the urine? Give two tests.
5. Give the reaction, specific gravity, and percentage of fats in normal cow's and woman's milk.
6. Mention a secretion in the body that contains cholestrin, one that contains pepsin, and one that contains trypsin.
7. What antidotes should be used in phosphorus poisoning? Explain the action of each.
8. Define and illustrate (a) capillary attraction, (b) absorption, (c) diffusion, (d) osmosis, (e) endosmosis.
9. In what principal form is nitrogen eliminated from the body? Give the chemical properties of nitrogen.



10. What is the chemical composition of the various renal calculi?
11. Mention one chemical antidote for each of the following: (a) Phenol, (b) arsenious oxide, (c) sulphuric acid, (d) mercuric chloride, (e) oxalic acid.
12. What are the distinguishing characteristics of urates and uric acid as found in the urine? Give test for uric acid.

#### PHYSIOLOGY.

Answer 10 Questions Only.

1. How and where is lymph formed?
2. Discuss sleep and its causation.
3. Discuss briefly the influence of the nervous system on the digestive secretions.
4. Describe the movements of the intestines during digestion.
5. Explain the effect of expiration on the volume of the brain. (b) Inspiration.
6. Discuss the formation, function and fate of glycogen.
7. What is the physiological difference between the brain of man and that of lower animals.
8. Under what circumstances may functional union be made between fibers of different nerve trunks? What practical value has this operation?
9. Give nerve supply and action of muscles concerned in the movements of the eyeball.
10. Do we determine the function of a nerve by the location or function of the center from which it comes or by its peripheral connections? Give your reasons.
11. What is the effect of a destructive lesion in the posterior limb of the internal capsule?
12. To what extent is the secretion of sweat under nervous control? Vascular?

#### HISTOLOGY.

Answer 8 Written Questions and Identify slides.

1. (a) Name the structures found in red bone marrow; (b) Give the function of red bone marrow.
2. Draw diagram illustrating lung tissue, naming different structures.
3. Explain the difference between the mucosa of the endometrium and that of the vaginal portion of the cervix. Also make drawing.
4. Give structure of the tonsil.
5. From which germ layers are the following derived? Pancreas, spleen, large intestine, salivary glands, fat.
6. Draw a transverse section of the brain, at a point just anterior to the pons varolii. Name most important parts.
7. Draw diagram illustrating a cell and name all the necessary constituents.
8. Describe the structure of the liver.
9. Explain the difference between the white and gray matter of the brain.
10. What are terminal arteries? Name organs which are so supplied.
11. Identify slides.
12. Identify slides.

#### HYGIENE.

1. Describe in detail the method of transmission of yellow fever.
2. What measures would you adopt to prevent the spread of typhoid fever during an epidemic?

3. What is septic tank? Describe construction and explain how it acts.
4. What sanitary measures should be adopted in caring for tubercular patients.
5. Name five of the most common intestinal parasites, and give a short description of each.
6. Give three ways of fumigating a room with formalin; also two methods with other disinfectants.
7. What effect have venereal diseases on the propagation of the human species. Explain.
8. How does the hook worm usually enter the human body? What means would you adopt to prevent its spread?
9. Describe the technic of vaccination and give the course of a successful case.
10. What is the period of incubation of the following diseases: Plague, smallpox, diphtheria, scarlatina, measles?
11. What is the object of placing traps on all waste pipes? What danger to health would arise if there were no traps?
12. Describe two types of water filter. What should be accomplished by a good filter?

#### \* BACTERIOLOGY.

1. What are the differences in structure, methods of multiplication sporulation, etc., between the blastomycetes or yeasts and bacteria?
2. What changes are produced on the culture media when bacillus coli communis is grown; (a) upon gelatine, (b) in milk, (c) in dextrose, (d) in lactose.
3. Describe the conditions necessary to successfully grow bacillus tetani and the appearance of a stab culture in agar or gelatine about the sixth day.
4. What is the difference between an antitoxin and a bacterial vaccine?
5. Name four (4) pathogenic anaerobic bacteria.
6. Differentiate between bacillus tuberculosis and bacillus leprae taking into consideration staining, culture peculiarities, effect on tissues and relation to tissue cells of the host.
7. Describe briefly how you would make gelatine plate cultures, using material from a furuncle as the source from which to obtain the germ.
8. Name ten (10) pathogenic bacteria that are gram positive.
9. What do you understand by the opsonic index?
10. How would you sterilize (a) a culture tube of gelatine, (b) a glass container with rubber stopper, (c) a platinum needle in a glass handle.
11. Identification of cultures.
12. Identification of slides.

#### OBSTETRICS.

1. What zymotic diseases are liable to affect the pregnant and puerperal woman, and how?
2. How soon after the completion of the second stage of labor should the umbilical cord be ligated? How dressed? What are the dangers of improper dressing?
3. What injuries are liable to occur to the birth canal during labor?
4. Under what circumstances are anesthetics indicated in labor? What are the dangers?

5. What are the causes of premature rupture of the membranes? How does it influence the progress of labor?
6. How would you determine if a child is premature at birth?
7. Differentiate between retained and adherent placenta; the management of each.
8. What can be determined by external palpation of the pregnant woman at the eighth month? How should it be performed?
9. What are the so-called false pains of labor; differentiate from true pains.
10. Rupture of the uterus, etiology and symptoms.
11. Give the physiology of menstruation, of ovulation, relation if any.
12. What is inversion of the uterus? Diagnosis and management.

#### PATHOLOGY.

1. Describe the difference in the pathological changes which take place in degeneration of the tissues and those which take place in atrophy.
2. Give the pathology of tabes dorsalis.
3. Describe the gross and microscopic changes which take place in the spleen, liver and kidneys as a result of prolonged exposure to malarial infection.
4. What are the postmortem changes usually found in diabetes mellitus in (a) children; (b) adults of middle age; (c) adults of advanced age?
5. What is the average blood pressure in adults fifty to sixty years of age measured in millimeters of mercury; and describe the results if this pressure is exceeded for a considerable time.
6. In bony tissue what variety of malignant growths usually occur and why?
7. Under what conditions is cerebral embolism most likely to occur? What blood vessels are most likely to be affected and why?
8. Describe the local lesion caused by infection by anthrax bacilli; the general or systemic effects and state how infection usually occurs.
9. Describe the condition present in acute dilation of the heart. Give the immediate and predisposing causes and the usual final result.
10. State fully why urinary bladder disorders are so frequent and so resistant to treatment in both elderly men and in elderly women.
11. Identify 2 slides.
12. Identify 2 slides.

#### ANATOMY.

1. Trace cerebro-spinal fluid from the lateral ventricles to the spinal canal.
2. Describe the rami-communicantes.
3. Name the bones of the tarsus. Use diagram.
4. Indicate, on the diagram, the points of exit from the pelvis of the following nerves: External cutaneous, anterior crural, genito-crural, obturator, sciatic, pudic, superior gluteal.
5. Indicate, on the diagram, the course of the common, internal and external iliac arteries.
6. What veins are without valves?
7. What cranial nerves are distributed to muscles only, i. e., are motor?
8. Give topographical outline of the lungs and bronchi on the anterior chest wall. Use the diagram.

9. Give origin and course of the 11th cranial nerve as far as its exit from the skull.
10. What are the characteristics of arthrodial joints? Give five examples of this class of joints.
11. What is the ischio-rectal fossa, how bounded and what does it contain?
12. When the arm is hanging with palm forward, what bony prominences at shoulder, elbow and wrist are normally in line?

#### GENERAL DIAGNOSIS.

1. Give the physical signs of a pleurisy with effusion.
2. Give the symptoms of bubonic plague.
3. Give the symptoms and physical signs of aortic insufficiency in the stage of failing compensation.
4. Give varieties, etiology and symptoms of cholera.
5. Give the symptoms of tabes dorsalis.
6. Describe a colles fracture.
7. Give the points upon which you would make a diagnosis of cancer of the stomach.
8. Describe "diabetes mellitus" and differentiate it from "diabetes insipidus."
9. Differentiate rubella from scarlet fever.
10. Describe the secondary lesions of syphilis.
11. Give the symptoms of a transverse myelitis.
12. Give the symptoms of cholelithiasis.

#### GYNAECOLOGY.

1. Give the conditions justifying operative measures in fixed retro-displacement of the uterus.
2. Describe a pelvic haematocele and give the usual cause.
3. What is the pathology of pelvic cellulitis and what are the physical signs?
4. Name the most important cause of sterility.
5. Differentiate between a pudendal hernia and a pudendal haematocele.
6. What do you understand by the operation for perineorrhaphy?
7. Give the etiology and pathology of chronic endocervicitis.
8. Describe a case of carcinoma uteri and give some of the most prominent physical signs.
9. Discuss the matter of relative prognosis of cancer of the body of the uterus and cancer of the cervix.
10. Describe the mode of use and purpose of a vaginal tampon.
11. Differentiate between herpes of the valva and chancre.
12. Name the muscles of the perineum and give the functions of the perineal body.

#### GASTRIC ULCER.

After hemorrhage, or even in cases in which a diagnosis has been made without this more or less startling symptom, I value opium most highly, giving preference to the alkaloid morphia, combined with atropia hypodermatically.

### SKIN GRAFTING.

J. S. Davis (*Annals of Surgery*, September, 1909) bases his paper on a review of 554 house cases which have been skin-grafted in the clinic of Dr. Halsted at the Johns-Hopkins Hospital. In this series all types of grafts have been used, and skin defects on almost every part of the body have been grafted.

*Technique for Thiersch Grafting: Preparation of the Skin from which the Graft is to be Cut.*—Shave the selected area and scrub carefully with green soap and water, and rinse with water. Sponge with ether, followed by 70 per cent alcohol; then with Harrington's solution (bichloride of mercury, 9 Gm.; hydrochloric acid, 60 cc.; water, 330 cc.; alcohol, 600 cc.); and finally wash thoroughly with bichloride of mercury solution 1:1000. Again wash carefully with sterile normal salt solution, and apply a sterile gauze dressing wet with normal salt solution, until ready to cut the graft. (When Harrington's solution is omitted use 95 per cent alcohol and continue as above.) The grafts are almost always cut from the thigh, and usually from the right one when practicable. The anterior and inner portion is the first choice, the external aspect next, and finally, if necessary, the posterior portion. Occasionally the skin from the arm or leg is used.

*Cutting the Graft.*—Place a small sand-bag beneath the thigh in order to give a better surface from which to cut. Arrange the usual sterile dressings about the selected area. Care must be taken that no carbolic or bichloride solutions be brought into the field or touch the grafts, either on the dressings, gloves, or instruments.

The Catlin knife and the boards after being boiled are placed in salt solution, and the sterile rubber protective is removed from the bichloride solution and also put in salt solution.

The skin wet with salt solution is then put on the stretch, and held as flat as possible by means of two sterile boards about 8 inches long, placed quite close together at right angles to the length of the limb, the first being held by the assistant, and the other by the left hand of the operator.

The edge of the sharp Catlin knife is then engaged in the skin between these boards and held almost flat against the limb, and by a rapid sawing motion the graft is cut, the knife closely following the board in the hand of the operator, which is drawn slowly along in front of it. The graft is cut at a level which will include the tops of the papillary layer of the corium, and only a slight amount of bleeding will follow.

After cutting the graft, it is picked up upon a piece of rubber protective, the raw surface being exposed. The whole is then placed upon a board, and by means of a smooth instrument the graft is spread out evenly. It is then covered with gauze wet in salt solution until the area to be grafted is ready. For several years the large grafts on the defects following operation on breast cases have been buttonholed here and there to get rid of air bubbles.

*Application of the Graft.*—Being sure that all bleeding has ceased, the protective on which the graft is spread is placed over the defect so that the graft is next to the wound. Then gradually the protective is lifted up and the graft is separated and left in place. It is pressed down evenly on the wound with pieces of gauze in order to get rid of any air bubbles, and to make it adhere as closely as possible. Should more than one graft be needed, they are placed so that they slightly overlap the edges of the wound and of the adjacent grafts.

*Preparations of the Surface to be Grafted.*—If the graft is to be applied to a clean, fresh wound it is important to see that all hemorrhage has ceased.



and that the wound is as dry as possible. If a granulating wound is to be grafted, it is only necessary that the granulations be in a perfectly healthy condition before the grafting is attempted.

In a few cases the grafts have been applied directly to the healthy granulating surface after cleansing this surface as thoroughly as possible with irrigations, gauze pledgets, and wet compresses being careful not to cause any bleeding. Lauenstein's method of rubbing off the granulations with sterile gauze tampons has also been used, but usually the granulations were thoroughly removed with a curette or scalped down to the firm base, and the grafts applied. In addition to the above the unhealthy skin edges were excised and gridiron incisions made through the hard fibrous base of the ulcer to healthy tissue beneath, extending out into the normal surrounding skin, in order to obtain a better blood supply. In some old chronic ulcers the entire ulcer, including the edges and base, was excised down to healthy tissue and the graft then applied.

*Dressing of the Grafted Surface.*—Since April 10, 1895, when sterile silver foil was first applied as a dressing to the grafts, it has been used almost exclusively, and with excellent results. It is put on in several layers, and over the last layer are placed the porous sheets of paper which come between the silver leaves. This dressing allows the secretions to come through and be absorbed by the gauze which is placed above it. The dressing is secured by a bandage and the part immobilized. The first dressing takes place ten days later.

*Dressing of the Area from which the Graft is Cut.*—All sorts of dressings have been tried, but the one finally adopted as the most satisfactory and comfortable is sterile boric acid ointment spread on sterile rubber protective. This dressing extends some dis-

tance beyond the margins of the wound and is held in place by strips of adhesive plaster, and over this is put a dry sterile gauze dressing and a bandage.—*Therapeutic Gazette.*

## PHYSICAL CONDITION OF NATIVES OF UNALASKA, ALASKA.

Surgeon Stimpson, on the revenue cutter Manning, reports, October 12, 1909:

"There are 360 natives at Unalaska, 93 on St. George Island, and 198 on St. Paul Island. The physicians on the island state that fully 60 per cent of the natives under their care are suffering from tuberculosis and at least that number at Unalaska are afflicted with the disease. Tuberculosis exists in all forms, and there are few children who do not show swollen glands or some other evidence of the disease. Many of them improved during the summer of 1909 under treatment. They have gained in weight, their skins are clearer, and their sores have healed. An effort is being made to instruct the natives in the precautions to be taken to avoid contracting tuberculosis, such as forbidding indiscriminate spitting, requiring the burning of sputum, and sleeping with the windows open. There is no wood on the islands and coal is expensive, so that there is a tendency to keep the houses closed to save fuel.

"The natives suffer from decayed teeth. If a dentist could visit the islands in the summer much pain could be prevented and many teeth saved.

"There is a shortage of water at St. Paul village. The supply is now obtained by hauling water in wagons and wheelbarrows from wells situated at some distance from the village. The natives could keep their houses cleaner if they had an abundance of water and the danger of the spread of infection would be greatly lessened."—*Public Health and Marine Hospital Service.*

## OBITUARY—DR. WALTER B. PURCELL.

Dr. Walter B. Purcell, one of the best-known physicians in Arizona, was instantly killed by the overturning of his automobile, a few miles from his home in Tucson, on February 27, 1910. Dr. Purcell was born July 4, 1858, in Clinton, Mo. He graduated from the Gross Medical College in 1889 with a degree of operating surgeon, the degree being conferred by Dr. Clayton Parkhill, afterward chief surgeon during the Spanish-American War. In 1890 he served as special instructor in the Gross Medical College, took a post-graduate course in surgery in New York City, and later a special course in 1909.

For several years he was located in Denver, but moved in 1893 to El Paso and later to Ysleta. He moved to Tucson with his family in 1896 and has practiced here almost continually since that time. At the time of his death he was county physician, and in addition was practically in charge of St. Mary's Hospital.

In 1892 he was married to Miss Pauline Tompkins of Boonville, Mo., and she still survives him. They had two children, who live in Tucson, a son, George, and a daughter, Ethline. Dr. P. P. Purcell, Sr., his father, and mother also live there.

Dr. Purcell was an expert automobilist, and he is supposed to have been the first to cross the desert from Los Angeles in a machine. That took place in 1907. He was one of four who started on the trip, and the only one who finished. Reports of that feat, which at the time was considered of considerable moment, were widely circulated in the newspapers.

Dr. Purcell was affiliated with a large number of fraternal organizations, including the Elks, A. O. U. W., Redmen, Spanish-American Alliance, Woodmen Circle, Fraternal Brotherhood, and Old Pueblo Club.

The Pima County Medical Society

passed the following resolutions of condolence, at a meeting held March 8th, 1910:

*Whereas*, Our Society, in common with the people of this community, was shocked at the tragic death of our fellow member, Dr. W. B. Purcell, and,

*Whereas*, Dr. Purcell had endeared himself to us by his medical learning and surgical skill, by his unassuming manner, his genial nature and his broad charity, by his courteous and considerate treatment of his associates, and by his readiness to respond to the call for assistance from any of us, therefore,

BE IT RESOLVED, That this Society has lost a conspicuous member. That we individually feel the loss of a true, personal friend. That this community has lost the services of a skilled physician and surgeon. That the poor of our vicinity have been deprived of a devoted friend and self-sacrificing attendant. And that a copy of these resolutions be forwarded to the family of our deceased member and be spread on the minutes of our Society.

W. V. WHITMORE,

H. E. CREPIN,

H. W. FENNER,

Committee.

## MEDICAL EDUCATION.

In the course of his address before the conference on medical education recently held in Chicago Dr. Bevan said:

"From a study of the subject of medical education during the last eight years, I desire to present to you briefly some conclusions:

"1. Medical education and medical educational standards are not in a satisfactory condition in this country. Great improvements have been made in the last ten years and, although the situation is encouraging, conditions as a whole are not only unsatisfactory, but not even acceptable.

"2. When we met six years ago at the first conference on education there were over 160 medical schools in this coun-

try. There are now about 140 medical schools. The number should be further reduced to 60 or 70.

"3. It costs more to conduct a modern medical school than the amount which can be obtained from students' fees. The 60 or 70 schools which should survive must receive either state aid or private endowment.

"4. The medical school of the future must be developed as the medical department of a university.

"5. The study of modern medicine demands: (1) a certain preliminary education; as a minimum this should

be eight years in the primary school; (2) four years in the high school; (3) at least one year in special preparation in the pre-medical sciences of chemistry, physics and biology; (4) four years in the medical school, two years in the laboratories of anatomy and physiology, pathology and pharmacology; two years in clinical work in medicine, surgery, obstetrics and the specialties; and finally (5) at least one year of practical work as an interne in a hospital. And the time has about arrived when provision should be made for including this hospital year in the medical course."

## BOOK REVIEWS

THE PROPAGANDA FOR REFORM IN PROPRIETARY MEDICINES. Sixth Edition. Containing the various *exposes* of nostrums and quackery which have appeared in *The Journal of the American Association*. Price, paper, 10 cents; cloth, 35 cents. Pp. 292. Illustrated.

This book presents in convenient form most of the exposures that have appeared in *The Journal of the American Medical Association* showing the composition of various proprietary preparations.

NEW AND NONOFFICIAL REMEDIES, 1910. Containing descriptions of articles which have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association, prior to Jan. 1, 1910. Paper. Price, paper, 25 cents; cloth, 50 cents. Pp. 256.

This is the 1910 edition of the annual

New and Nonofficial Remedies, issued by the Council on Pharmacy and Chemistry of the American Medical Association, and contains descriptions of all articles approved by the Council, up to Dec. 31, 1909. There are also descriptions of a number of unofficial nonproprietary articles which the Council deemed of value. The action, dosage, uses and tests of identity, purity and strength of all articles are given.

HANDBOOK OF THERAPY. Cloth. Price, \$1.50. Pp. 421. Chicago: American Medical Association, 1910.

Besides the articles on therapy, the book contains a list of the articles accepted by the Council on Pharmacy and Chemistry for inclusion in New and Nonofficial Remedies, as well as tables and compilations of miscellaneous data. The book is of convenient size for the pocket or the satchel and will prove of value to every purchaser.

THE SEXUAL LIFE OF WOMAN IN ITS PHYSIOLOGICAL, PATHOLOGICAL AND HYGIENIC ASPECTS. By E. Heinrich Kisch, M.D., Professor of the German Medical Faculty of the University of Prague; Physician to the Hospital and Spa of Marienbad; Member of the Board of Health, etc. Only authorized translation into the English language from the German by M. Eden Paul, M.D., with 97 illustrations in the text. Cloth, price, \$5 net. Published by Rebman Company, New York, 1910.

The author says: "I now have the welcome opportunity of drawing a general picture of sexual activity in women and of illuminating this picture both by the light of my own experience and by numerous references to the works of other authors. In passing, I have devoted considerable attention to questions



of education and personal hygiene, both of which are greatly influenced by the processes of the sexual life. Thus, I hope, the work will be rendered more interesting to the physician, and the general picture it is intended to convey will be more fully characterized by contemporary actuality.

"Natural divisions of the subject are, I consider, furnished by the three great landmarks of the sexual life of woman: the *onset* of menstruation—the *menarche*; the *culmination* of sexual activity—the *menacme*; and the *cessation* of menstruation—the *menopause*. These several sexual epochs are differentiated by characteristic anatomical states of the reproductive organs, by the external configuration of the feminine body, by functional effects throughout the entire organism, and, finally, by pathological disturbances of the normal vital processes.

"Thus in separate chapters a description is given of sexual processes, a detailed exposition of which will be vainly sought in the text-books of gynecology, yet which are none the less of far-reaching importance in relation to the physical, mental, and social well-being of women, and in relation also to the development of human society; such topics are, the sexual impulse, copulation, fertility, sterility, the employment of means for the prevention of conception, the determination of sex, sexual hygiene."

This work enters fully into all the details of the prevention of conception. So far from this being peculiar to Americans the author says: "Among the ancient Greeks the fear of over-population led to the practice of homosexual intercourse. The states of ancient Greece were in most cases of very small area, so that a very moderate increase in population would render the means of subsistence insufficient. Hence intercourse with women was avoided, and the sexual impulse was gratified in

unnatural ways. Inspired by this fear of over-population, Aristotle urged upon men that they avoid women, and should indulge in the love of men and boys, and at an earlier date Socrates had celebrated the love of boys as a mark of higher culture. On the other hand, Sappho of Lesbos became the inspired poetess of the love of women for members of their own sex."

In few countries are marriages so frequent, relatively to the population, as they are in France, whilst in no country is the average number of children per marriage so small. The people of France have reduced the prevention of conception to a system, and in addition to the prevention of conception they practice artificial abortion, infanticide and the exposure of children to keep down the numbers of their families. In fact, this work enters into the subjects of prevention of conception, copulation and similar topics with remarkable freedom.

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THE RAT AND ITS RELATION TO THE PUBLIC HEALTH. By various authors; prepared by direction of the Surgeon-General, Public Health and Marine Hospital Service of the United States, Washington Government Printing Office, 1910.

Surgeon-General Walter Wyman has done the world a service in issuing this volume. It makes a valuable work of reference.

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ANNUAL REPORT OF THE SURGEON-GENERAL OF THE PUBLIC HEALTH AND MARINE HOSPITAL SERVICE OF THE UNITED STATES. For the fiscal year 1909, Washington, Government Printing Office.

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TWENTIETH BIENNIAL REPORT OF THE BOARD OF STATE COMMISSIONERS OF PUBLIC CHARITIES OF THE STATE OF ILLINOIS. Springfield, Illinois, 1909.

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PHARYNGITIS.—In the treatment of pharyngitis equal parts of Katharmon, glycerine and water is a very efficient application to stimulate the follicular secretions to a healthy condition.

## MISCELLANEOUS—THERAPEUTICAL HINTS

### DECREASING DEATH RATE.

Dr. W. W. Beckett, Medical Director of the Pacific Mutual Life Insurance Company, in his recent annual report said in part:

"Gentlemen:

"During the past year the Medical Department has received 9,939 applications. Of this number 1,022 were declined—slightly more than 10 per cent. This percentage is practically the same as the preceding year.

"Death claims occurring during the first policy year have been 27, totaling in amount \$46,625. Of this number there have been 11 deaths, the applications for which policies the present management approved. Three of these were due to accident, one to suicide, one to murder and the remainder to acute diseases. I have personally inspected all the applications in connection with these death losses and can find nothing that would have foretold impending early death.

"The total number of deaths reported during the year, but not representing the number of policies, is 379. The causes of death are as follows:

Bright's Disease.....	17	.045
Tuberculosis and Consumption	60	.16
Heart Disease.....	61	.16
Pneumonia .....	34	.09
Typhoid Fever.....	24	.063
Cancer .....	19	.05
Paralysis .....	30	.08
Accidental Death.....	35	.092
Suicide .....	9	.024
Murder .....	8	.021
Appendicitis .....	11	.026
Cirrhosis of Liver.....	8	.021
Diabetes .....	5	.013
All other deaths.....	58	.15

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379

"You will see by this that our greatest mortality is occasioned by tuberculo-

sis and heart disease. The Department has been especially careful to eliminate not only diseases of the lungs and heart, but also the kidneys, recognizing that from these three organs we are apt to have our heaviest losses. The Department has also been especially careful in the selection of risks from certain unhealthy sections.

"The following is a comparison of the ratio of death losses to mean amount of insurance in force, as reported by the leading life insurance companies, which we are glad to say places the Pacific Mutual in the lead:

	1907	1908	1909
Mutual Benefit.....	1.27	1.14	
Equitable .....	1.44	1.60	
Mutual Life.....	1.62	1.49	
New York Life.....	1.14	1.12	1.18
Northwestern .....	.95	.94	
Penn Mutual.....	1.17	1.01	
PACIFIC MUTUAL	.90	.81	.71

"During the past four years the Pacific Mutual's actual death losses have gradually decreased until this year we have a record of 53.5 per cent actual death losses to the expected mortality. In 1906 the percentage was 66.82 per cent In 1907 the percentage was 68.57 per cent In 1908 the percentage was 58.96 per cent In 1909 the percentage was 53.5 per cent

The soothing of the rasping cough of bronchitis, without resorting to some form of opium, is one of the features of daily practice that will contribute to a doctor's success. For relieving this harassing cough Cordial of the Extract of Cod Liver Oil Compound (Hagee) is being largely prescribed, and with the fullest measure of success. It is particularly adapted for use in these bronchial catarrhs, not alone for its relief of the urgent symptoms, but also by reason of its protecting influence against further extension of the bronchial inflammation and chronicity.

"And it is further ordered, adjudged and decreed that the defendant deliver up any and all labels, advertisements or circulars and any and all cans or packages of the defendant's preparation having labels or wrappers with the said words 'Denver Mud' printed upon them, as aforesaid, to be destroyed, and that a writ of injunction issue in accordance with this decree, and it is further ordered, adjudged and decreed that the complainant recover from the defendant the profits made by the said defendant from the sale of the plastic dressing mentioned in the complaint under the name of 'Denver Mud' and that the complainant recover from the defendant its damages to be assessed as the court may direct and that the defendant pay the complainant the costs of this suit to be taxed.

"Dated this 3rd day of February, A. D. 1910.

"JOHN C. POLLOCK, Judge.

"United States of America, District of Kansas, ss."

The above is the conclusion of a decision in favor of the plaintiff in a case where the Denver Chemical Co. (Antiphlogistine) brought suit against the Colorado Chemical Company of Chanute, Kansas, who have been making a plastic dressing and selling it under the name of Denver Mud. In this suit Antiphlogistine was victorious at every point.

Recently I was called to see a bad case of erysipelas of the nose; the patient was suffering from intense pains of a neuralgic character, involving the nose, entire frontal region and head. Owing to the swelling there was marked tension of the skin, which was very sensitive to the slightest pressure. Ichthyol was being used without any material benefit, hence I order the following used in its place: Thigenol and Lanolin, equal parts, applied thickly three times a day. The results were very prompt;

## Catgut Honour

comprehends two main details—the integrity of the manufacturer and the conscience of the user. The first protects the operator, the second protects the patient—both conserve the highest efficiency of surgical technique.

### "Van Horn" Catgut

well exemplifies catgut honour in its practical application—an honour that expresses itself in the highest quality, the most careful selection and the most skillful preparation. Consequently, its use, insuring the full benefits of the highest tensile strength, definite absorbability and perfect sterility, meets every demand of the most scrupulous surgical conscience.

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the inflammation soon began to subside, the tension of the skin diminished, and the pain was relieved to a marked extent within twenty-four hours. I might add that I have found Thigenol of great service in the treatment of acne rosacea. Thigenol in skin diseases I prefer to ichthyol for three reasons: it does not have an offensive smell, does not stain, and gives better results.—C. R. Gulick, M.D., 2333 Broadway, N. Y. City.

In all forms of blood dyscrasia—as indicated by skin diseases, slow healing power and general debility—ecthol is effective. It quickly raises the antitoxic and opsonic power of the blood, increases the resisting power of the tissues and thus minimizes the dangers of infection. Healing processes are stimulated, and the whole economy is materially improved.



# ALPHABET FOR SCHOOL CHILDREN IN THE PREVENTION OF TUBERCULOSIS.

- A is for Anybody who can help prevent consumption, a child just as well as a grown person.
- B is for Breathing, which you should learn to do deeply. Take deep breaths in fresh air often.
- C is for Coughing, which you should never do in anyone's face, nor should you sneeze in anyone's face. Turn away your head and hold your hand before your mouth.
- D is for Don't. Don't swap apple cores, candy, chewing gum, half-eaten food, whistles, bean blowers, or anything you put in your mouth.
- E is for Eating no fruit that has not been washed or peeled, or anything that is not clean.
- F is for Fingers which should not be put in the mouth nor wet to turn the pages of books.
- G is for Giving good example to your fellow pupils and playmates by being always neat and clean, just as much so at home as at school.
- H is for Handkerchief, which should be used only to wipe your nose and not your slate, desk or shoes.
- I is for Illness of other kinds besides consumption, which following these rules will help prevent, such as colds, measles, grippe, diphtheria and pneumonia.
- J is for Joints, where children have tuberculosis more often than in their lungs.
- K is for Keeping your fingernails clean. A scratch from a fingernail may make a bad sore.
- N is for Nose, which you should never pick nor wipe on your hand or sleeve.
- O is for Outdoors, where you should stay just as much as you can. Always play outdoors unless the weather is too stormy.
- P is for Pencils, which you should not wet in your mouth to make them write blacker.
- Q is for Question, which you should ask the teacher if you don't understand all these rules.
- R is for Roughness in play by which you may hurt yourself or your comrades. If you have cut yourself, have been hurt by others, or feel sick, don't fear to tell the teacher.
- S is for Spitting, which should never be done except in a spittoon, or a piece of cloth or handkerchief used for that purpose alone. Never spit on a slate, on the floor, the playground, nor the sidewalk.
- T is for Teeth, which you should clean with toothbrush and water after each meal, or when you get up in the morning and before you go to bed at night.
- U is for Unkind, which you should never be to a consumptive.
- V is for Vessels, like drinking cups and glasses, which should not be used by one child after another without being washed in clean water each time.
- W is for Washing your hands with soap and water before each meal, even if it is only lunch.
- X is for X-rays which sometimes help to discover consumption or other forms of tuberculosis.
- Y is for You who should never kiss anybody on the mouth, nor allow them to do so to you.
- Z is for Zeal in carrying out these rules.

—Dr. S. Adolphus Knopf, *New York Post-Graduate Medical School and Hospital.*

# HYDROLEINE

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**Cod-Liver**  
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## ALCOHOLIC EPILEPSY.

Redlich (*Epilepsia*, 1900, i, 41) states that there are certain cases of alcoholic epilepsy in which the abuse of spirits is the only excitant in a person disposed thereto, either through heredity or by a "trauma." In other cases, the use of alcohol may bring about epilepsy without direct, natural predisposition, either in the form of true alcoholic epilepsy (Bratz) fits appearing under the influence of intoxication, or in the form of genuine, constitutional epilepsy, whereby fits also appear, irrespective of spirits being taken or not.

Moreover, there are intermediate forms of these types. Redlich discusses especially alcoholic epilepsy. Here the epileptic attack may appear at the moment of maximum intoxication. Emotion and trauma of the head will heighten

the action of alcohol. In some cases the fit occurs only during the after-intoxication period, twelve to twenty-four hours after the last dose of spirits. In common epilepsy the attack very frequently appears at that time. Delirium tremens may simultaneously occur, and either this or epilepsy follows an alcoholic bout. These two conditions are closely related both in cause and nature. It is a question whether abstinence from alcohol may cause fits or not.—*American Journal of Medical Sciences*.

IN ALLAYING INFLAMMATION IN THE PROSTATIC URETHRA, before surgical operations, and in keeping the urine bland and non-irritating after the operation is complete, Sanmetto has been used very extensively and found valuable.

### DYSMENORRHEA.

For the relief of pain it is important especially in the neurotic class of cases, not to use opiates or drugs which are apt to lead to drug habits. Opium and alcohol have both killed many patients and caused lives of wretchedness and invalidism, where a proper examination of the cause would have resulted in health and freedom from pain. The use of phenacetin with sodium bicarbonate is sometimes absolutely necessary to relieve the sharp pain; and especially is it efficient in rheumatic conditions. Ac-onite in small doses and pulsatilla are efficient in reducing the congestion and causing the flow to appear.

### LOCAL USES FOR GUAIACOL.

Appleby, noting that guaiacol applied to the skin is rapidly absorbed and exerts a powerful antipyretic action, applied it in a case of nephritis with slight convulsions and a full, hard pulse. Twenty-five drops were rubbed into the skin of the abdomen. The relief was marked. He then used it in the same manner in a few cases of puerperal eclampsia, the results being surprising and happy. The convulsions recurring in one case when the anesthetic had worn off, fifty drops of guaiacol were rubbed into the abdomen; in a few minutes the pulse became soft, there was free diaphoresis and convulsions ceased.

**DIAGNOSTIC ACCURACY.**—Is a prime factor in the practice of medicine, and quite as important is therapeutic accuracy. In the treatment of many of the diseases of women, such as dysmenor-rhea, amenorrhea, menorrhagia, metror-rhagia, etc., and where Hayden's Viburnum Compound has been prescribed, uniformly good results invariably follow its administration; but if Viburnum Compound is written without specifying "H. V. C.," any one of the many substitutes and imitations of this well-

known product may be put up by the druggists and decidedly indifferent and unsatisfactory results are the consequence. For definite results, definitely specify Hayden's Viburnum Compound.

A considerable proportion of all cases of intestinal indigestion can be traced to muscular insufficiency and deficient circulation in the submucous coats. Treatment directed toward increase of muscular activity is all important, and in conjunction with massage and other mechanical forms of tonic stimulation, Gray's Glycerine Tonic Comp. has given uniform satisfaction.

The over-stimulation of the cerebral functions from alcohol yields promptly to the soothing action of Peacock's Bromides, which will often prove to be a stand-by in cases of delirium tremens. In these patients in whom the commercial bromides should not be exhibited on account of their usual irritating action on a stomach already seriously affected, Peacock's Bromides will fully meet the requirements.

**CARBENZAL SOAP** is unsurpassed as a toilet soap. It is also especially satisfactory for shampooing, shaving and for scalp and skin. It is manufactured by the Abbott Alkaloidal Company, Chicago.

Dr. Downing D. Nice of this city is prepared to give the Pasteur Anti-Rabic treatment. Suite 340, Douglas Bldg., cor. Third and Spring streets.

### RETINAL HEMORRHAGE.

L. Webster Fox calls attention to the relation between retinal hemorrhages and high arterial pressure. Eighty per cent of these hemorrhages occur in individuals suffering from high arterial pressure. This is apparently the most frequent exciting cause of the hemorrhages.



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Editor,  
DR. WALTER LINDLEY.

Associate Editors,  
DR. GEORGE H. KRESS and DR. JOHN W. FLINN.

Assistant Editors,  
DR. H. BERT. ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW  
and DR. F. M. POTTENGER.

## SURGERY OF THE THORACIC CAVITY.\*

BY W. W. BECKETT, M.D., EX-PRESIDENT CALIFORNIA STATE MEDICAL SOCIETY AND  
PROFESSOR OF GYNECOLOGY AND SURGERY IN THE LOS ANGELES COLLEGE OF  
MEDICINE OF THE UNIVERSITY OF CALIFORNIA.

### *Wounds of the Lung and Pleura.*—

These conditions are the result of punctures or tearing by fractured ends of ribs, gun-shot wounds, stabs and surgical operations. The dangers following are shock, hemorrhage and pneumothorax.

In the treatment of penetrating wounds of the chest, it is not best to let the patient lie on the healthy side, as this will interfere with the movement of that part of the chest and favors the entrance of air into the pleural cavity. It may be necessary to remove segments of one or more ribs to permit of exploration, removal of foreign bodies and the checking of hemorrhage. Steady pressure on the chest wall may be all that is necessary to keep the pleural surfaces in apposition. If there is a wound of the lung, remove any foreign bodies and check hemorrhage by means of sutures and hot pads of gauze. Close the wound in the lung by mattress or purse string

sutures. The opening in the chest wall can either be closed or loosely packed with gauze. The affected side should be immobilized by very tight strapping. A loose packing of the external wound or a cigarette drain permits the escape of air and effusions from the pleural cavity. When the hemorrhage is small in amount, a gauze drain may be inserted and the patient watched.

It case of pneumothorax resulting from fracture of a rib, with cyanosis, and disturbed heart action, aspiration will give immediate relief. This relief will be permanent if the wound in the lung closes; otherwise, the symptoms promptly recur, when it will be necessary to open the chest and close the wound in the lung. A small amount of ether is an advantage as the patient may be made to cough and so expand the lung and force it toward the wound.

*Operations on the Pleural Cavity.*—  
Exploratory puncture should be employed whenever the presence of an

\*The Oration in Surgery delivered before the Arizona Medical Society, Phoenix, April 29, 1910.

effusion is suspected. This is the most important diagnostic means we have, and determines the presence and character of the effusion. Various instruments are used, but the ordinary aspiratory syringe with a fair sized needle will answer. If the effusion is not too thick a hypodermic syringe with a long and not too small needle will be all that is necessary. The needle should be introduced at right angles to the rib and at its upper border, to avoid injuring the intercostal vessels. The sixth mid-auxiliary intercostal space or the eighth near the angle, of the scapula, are the most suitable points for puncture in the majority of cases. Withdraw the piston slowly and if fluid is found, it should be preserved for examination. A few drops of a 2% cocaine solution may be used beneath the skin if desired. A small puncture with a knife through the skin will allow the needle to pass through with less force. The puncture should be made over the upper part of the rib and the skin pulled up as the needle is introduced. This will produce a valvular wound. Aspiration may be performed for diagnostic and for therapeutic purposes.

In adults if the fluid is not infected the operation is curative, and in children even when there is infection a cure may result. It may be necessary to make several punctures before fluid is found or one is satisfied that there is none present. It is best to place the patient in a semi-recumbent position. The upright position is apt to produce a sudden anaemia of the brain. The fluid should be withdrawn slowly. If the pulse should markedly change or the patient should have a feeling of oppression or become faint, the flow should be stopped till he recovers. It is not best to remove all the fluid. A small amount may be absorbed.

Exploratory pleurotomy as advised by

Dr. Carl Beck and recommended by Tuffier may be performed in those cases where repeated exploratory puncture fails to reveal the true nature of the condition and where there are symptoms of effusion following a pleuropneumonia of long standing. The operation is not difficult and is not fraught with serious results if carefully done.

*Thoracotomy.*—The object of this operation is the drainage of the pleural cavity. This may be done by making an incision down through the muscle along the lower border of the intercostal space. Then push a fine hemostat through the pleura. Open the forceps so as to enlarge the pleural opening and introduce a soft rubber drainage tube trans-fixed with a large safety pin. Never irrigate the pleural cavity. A counter opening with through and through drainage is usually desirable. Keep up drainage till the discharge has stopped. In case of pneumonic infection the recovery is as a rule rapid, but where there is a mixed infection the discharge may last for weeks or months. In the majority of cases it is preferable to resect a portion of one or more ribs. In many cases in children, this will not be necessary. Through the larger opening, the whole cavity may be explored and fibrinous lumps, necrosed tissue and cheesy masses are easily removed. The walls may be wiped with gauze or a blunt spoon may be used to remove adherent masses. Irrigation with salt solution or bichloride of mercury is not necessary and may do harm.

It has been shown by experiments on dogs that irrigation of the pleural cavity with various solutions may induce either a pressor or a depressor influence on the arterial circulation. Of the two, the depressor action is the more frequent and of the greater clinical importance. The reflex disturbances are of the same kind, but the frequency and severity are much more marked in

empyema dogs than in healthy animals.

Hot water irrigation has a slight tendency to elevate blood pressure. Cold water tends to lower blood pressure to a slight degree. Lugol's solution occasionally produces a marked fall in blood pressure, but its effect is transitory.

Stitch the costal pleura to the skin and pack tightly with plain sterile gauze. After twenty-four hours the gauze may be loosely packed. The gauze soaking up the pus removes it better than does a drainage tube.

Formaline (2 per cent.) in glycerine often sets up a depressor reflex which may be dangerous to life. Hydrogen peroxide often sets up dangerous reflexes in empyema dogs. Death may ensue even when the gas is allowed to escape. In old empyemas of men, the pleura is usually protected by a thick fibrinous exudate, but this protection cannot be relied upon and irrigation with antiseptic solution is not free from danger. Artificial respiration by intermittent positive pressure is the most reliable means of restoring and maintaining blood pressure.

Suction drainage is only advisable in those cases where the expansile power of the lung is sufficient to fill the pleural cavity. This may be ascertained quite definitely by Perle's method. The free drainage of pus and the expansion of the lung, obliterating the chest cavity and permitting adhesions of the pleural surfaces, are necessary to the cure of an empyema. Where these conditions can not be brought about thoracoplasty should be performed. Estlander resects about four inches of each of three or four or more ribs, through separate incisions. Instead of the several skin incisions, the ribs may be exposed by a single U incision, a flap turned back and the ribs resected subperiosteally. This allows the falling in of the chest wall. In old cases where the parietal pleura is thick and inelastic, sufficient retrac-

tion of the chest wall will not take place. In these cases Schede makes an incision beginning at the pectoralis major on a level with the axilla, goes downward in a curve to the tenth rib in the posterior axillary line, then crosses the chest to the back and ascends to the second rib midway between the spine and scapula. This whole flap is reflected upward including all the tissues superficial to the ribs and intercostal muscles. The ribs are resected subperiosteally over all the cavity from their costal cartilages to their tubercles. A large incision is made through the pleura which will permit of a thorough exploration and indicate the number of ribs that must be excised. Remove all the periosteum, intercostal muscles, and thickened pleura over the empyema cavity. Wipe the cavity with gauze, replace the flap and fasten in position with sutures. The remaining cavity is packed with sterile gauze. Beck, Fowler, Delorme and other surgeons resect the thoracic wall and remove the thickened visceral pleura and close the chest. The best results will be obtained in most old cases by this procedure. Flower's conclusions are as follows:—(Quoted by Binnie):

"Decortication of the lung is an operation adapted to all cases of old empyema in which extensive and preoperatively discoverable tuberculosis lesions of the lungs are not present, and in which the patient's condition will not permit of a major operation.

"2. It may be advantageously substituted for Estlander's operation.

"3. It should replace Schede's operation in all cases.

"4. The method by extirpation of the diseased portion of the pleural membrane, including the visceral, cortical, and diaphragmatic portions, is the operation of choice.

"5. Failing this, visceral pleurectomy should be selected.

"6. Pleurotomy, with simple detach-



ment of the visceral layer of the diseased pleural membrane, gives sufficiently good results to warrant the surgeon in resorting to this procedure in cases in which the condition of the patient will not permit of the application of the other and more desirable methods.

"7. Whatever operative method is adopted, as complete access to the cavity of the chest as possible should be obtained, and rapid closure of the opening in the chest-wall afterwards secured, since the complete re-expansion of the lung must depend largely upon the normal respiratory movements.

"8. Pulmonary or respiratory exercises should not be neglected in the after treatment."

Delorme reflects a flap consisting of the whole chest wall, decorticates the lung, cleans the empyema cavity and replaces the flap and drains.

Roux believes that long incisions through the indurated visceral pleura gives as good results as decortication.

Kocher resects one or two ribs at the lowest part of the empyema cavity, then guided by his finger he extends his incision backward through the soft parts between the spine and scapula to the uppermost part of the cavity. He then divides the ribs and intercostal muscles in the line of the incision, including the first rib if the empyema extends that far. From the anterior end of the incision the wound is extended upward and the corresponding ribs are divided. The flap, consisting of the whole chest wall, is reflected upward and an incision made through the visceral pleura. If the lung expands he removes the visceral pleura until the lung expands sufficiently to fill the cavity. If the lung does not expand, he removes the ribs subperiosteally from the inner surface of the flap. The flap is replaced and drainage provided. The after treatment in all these cases may be long and subsequent operations may be necessary. Persistent fistulae follow-

ing these operations are not so frequent as formerly, yet they occur sufficiently often to be of much annoyance to the surgeon. Dr. Wenkebach of Groningen employs repeated aspirations of pus to the point when the patient complains of "pulling or drawing" in the chest, then admits air into the pleural cavity. The air being gradually absorbed favors the gradual expansion of the lung and adhesions to the chest wall. The procedure is repeated every few weeks and as the adhesions to the chest wall increase in extent the abscess cavity diminishes in dimension till it is finally obliterated. His successful cases were those where the X-rays demonstrated adhesions at the apex of the lungs. He says: "For the present, I would consider this simple treatment favorable in cases where the lung is adhered to the chest-wall at any point, which is certainly often the case in tuberculosis. Where the lung is entirely collapsed this treatment is less promising."

He has found that in acute pleurisy with effusion the fluid can be completely withdrawn without the danger of pulling or tearing of lung tissue if air is admitted to the pleural cavity.—(This does away with the limit of 1500 c.c. as the only safe amount to withdraw at once.)

Acute empyema is best treated by a free opening of the thorax and drainage, but where the acute infective inflammation has been passed, he considers that an open pleural cavity is the greatest obstacle to the expansion and adhesion of the lung. Here he would close the wound and then later puncture the chest, and admit air, even if it has to be repeated several times.

The method advised by Murphy of aspiration and the injection into the pleural cavity of 60 c. c. of a 2 per cent. solution of formaline in glycerine, will overcome the necessity for operation in many cases, and through and through tubular drainage in case of operation

will bring about a cure in many others, but in cases in which sinuses and abscesses persist, the method introduced by Dr. Emil Beck has in our hands given the most satisfactory results. This treatment consists in filling the cavity with a mixture of one part arsenic free bismuth, and two parts sterile amber vaseline. This mixture is injected every second day until suppuration has about ceased, then a mixture is injected which contains 30 parts of bismuth, 60 parts vaseline and 10 parts paraffine, of sufficient hardness to give the mass a fair degree of hardness at the temperature of the body. These injections are made less frequently until it may be necessary to make them not oftener than once in a week or ten days. In septic cases the improvement of the patient is often most marked. The pulse and temperature become normal in a few days, the septic appearance and anaemia soon disappear, nutrition improves, the discharge of pus rapidly decreases and usually becomes sterile in a short time.

In many of these cases an homologous vaccine will be of material assistance to the paste treatment, while in others it seems to be of no value whatever. In tuberculous subjects it is always well to give tuberculin a thorough trial. In many cases it will be of great benefit. In operations on the chest Sauerbruch's Cabinet is of value, but is beyond the reach of surgeons except in some large hospitals. Brauer's, Samuel Robinson's, and other devices for carrying on respiration under positive or negative pressure have not yet been made sufficiently practical to be of much use to the general surgeon.

In my experience, pleura-pneumonia is the most frequent cause of empyema. Aspiration will cure most all early cases of pleurisy with effusion.

The exploring needle is a valuable means in making a diagnosis, and it is not harmful if carefully used. In septic cases, incision with through and through

drainage or Beck's paste and serotherapy, will give the best results. If the treatment is carried out with strict antiseptic precautions, extensive rib resection will seldom if ever be necessary. Irrigation should not be employed. It will do no good and may do harm.

The following are illustrative cases of the Bismuth Paste Treatment:

Mrs. L., age 35 years. Mother of two children. Had a persistent cough. She reacted to the tuberculin test. In 1905 had pneumonia, followed by pleurisy with effusion. The pleural cavity was twice aspirated. The effusion becoming purulent, three inches of the fifth rib was resected and the cavity drained. Patient's health failed persistently. Decreased in weight from 130 to 90 pounds. The abscess, with a free discharge of pus, persisted. At the time she came into our hands, there was a discharge of from three to four ounces of pus daily. In September, 1908, we filled the cavity with bismuth (30%) paste. The discharge decreased to about an ounce daily. The X-ray showed a cavity extending from the 4th to the 7th ribs. As the discharge did not decrease, we resected about four inches of the 5th, 6th and 7th ribs, cleaned out the cavity, rubbing the pleural surfaces well with gauze, sutured the wound, leaving only a small opening through which we injected sufficient paste to fill the cavity. Gauze dressings were applied and tightly strapped. For several weeks there was very little discharge of pus, and she was allowed to leave the hospital. During the winter months she did not improve. The injections were frequently repeated. During the warm summer her condition grew better. Her cough ceased, the wound entirely healed, she gained flesh, and is now apparently perfectly well.

Mr. M., aged 40 years. Gave a history of poor health, for about two years, with shortness of breath, cough, chills, fever and loss of weight. July 26, 1909,

we aspirated thirty-four ounces of pus from right pleural cavity. The cavity soon refilled and on August 19, 1909, about three inches of the 4th, 5th and 6th ribs were resected and the cavity drained. Three weeks later the cavity was filled with bismuth (30%) paste. The discharge rapidly decreased. The patient was injected seven times more at intervals of from three to five days. The wound healed in six weeks after the first injection. The cough ceased, and the patient soon regained his normal weight, and is now quite well.

Mr. E., aged 28 years. Chronic empyema for three years. Three years ago he had a resection of a portion of one rib and his pleural cavity drained. A fistula had persisted ever since. About six months before he came under our observation he was injected with bismuth paste. He immediately coughed some of the paste, demonstrating a bronchial fistula. This he continued to do until a few weeks before we saw him. We filled the cavity with bismuth (30%) paste, containing 5% white wax, and removed the drainage tube he was wearing. For a short time there was a slight serous oozing. This, however, soon ceased and the Sinus closed. He has since been perfectly well.

*Pulmonary Emboli.*—The diagnosis of pulmonary embolism should be positive to warrant operative interference. Usually the diagnosis is not difficult; there is sudden collapse, pallor, loss of pulse, and distressed respiration. These symptoms with a history of an operation in which large veins were ligated or fracture of one of the lower extremities, make the diagnosis fairly certain.

It is very difficult to say which cases should be operated. Many recover without operation and in many cases the time for operation is too short. The operation must be done quickly and is attended with great danger.

Freundlenburg reports the successful removal of an embolism from a calf. He also reported two cases operated on in the surgical clinic at Leipzig. One died fifteen hours after the operation from heart failure and the second died thirty-seven hours after operation of post-operative hemorrhage from the internal mammary artery.

In Von Eiselsberg's Clinic and Private practice there were during the 7 years from 1901-1908 among 6871 operations, 57 cases of pulmonary emboli (0.82%). Statistics of other operations show the occurrence of pulmonary complications after all operations varying from 0.2% to 7%.

Von Eiselsberg's 57 cases are divided into:

- (1.) Non infective pulmonary emboli (rapidly fatal), 23 cases.
- (2.) Infarcts of the lung, 20 cases.
- (3.) Septic emboli which led to pulmonary abscess, 14 cases.

Ranzi sums up the treatment of pulmonary thrombosis and embolism as follows:

"Besides strict asepsis, we consider the preparation of the patient before operation with heart-stimulants, the after-treatment with breathing exercises, changing the position of the thorax and light massage of the extremities, the most essential means to meet the danger of thrombo-embolism by way of prophylaxis.

"When these rules are carried out we do not consider it necessary to get laparotomy cases out of bed early, on the contrary look upon it as dangerous for other reasons.

"After thrombosis or embolism has occurred we must effect absolute rest, strengthen the heart action with stimulants, as well as give morphine for the pulmonary condition."

*Emphysema.*—For many years Freund, of Berlin, has contended that the barrel-shaped chest in certain forms of emphysema is not caused by the condi-



tion of the lungs, but by the rigidity of the chest wall due to pathological changes in the ribs and costal cartilages. Pathologically the costal cartilages are found to be in a state of fibrillation and cystic, with calcareous deposits, thickened, hardened, brittle and inelastic. This interferes with the normal motion of the corresponding ribs. The cartilages of the third and fourth ribs of the right side are most frequently involved, but these changes may occur in all the costal cartilages.

The first costal cartilage is the last to degenerate. With the rigidity of the ribs the sternum is forced outwards and produces the rigid barrel-shaped chest, which retains the lung in a state of distension. The normal functioning power of the chest is restored and the expiratory efforts of the lungs facilitated by resecting the diseased cartilages. The dyspnea, palpitation and cyanosis are diminished and the chest expansion is increased. The operation is not dangerous and is not attended with shock.

While in Paris last year I was shown two cases by Dr. Tuffier upon whom he had operated for this condition. Both patients had experienced almost immediate relief.

The operation consisted in removing from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  inches of the 2nd, 3rd, 4th, 5th and 6th ribs and cartilages at their junction. The periosteum and perichondrium are removed to prevent reformation of the ribs. The ends of the ribs should be covered with reflected periosteum.

*Gangrene and Abscess of the Lung.*—Sometime ago Dr. Lord collected the cases that had come to autopsy or operation at the Mass. General Hospital. Of 38 cases of abscess, 13 were single and 25 were multiple. Time was the most important factor in determining the number of lesions. With the lapse of time a single abscess or area of gangrene will almost always become multiple by extension into contiguous

regions or by the aspiration of infected material into other parts of the lung. A long duration is likely to lead to pulmonary induration, making an operation more unfavorable, by increasing the danger from hemorrhage, and preventing the closing of the cavity after it has been evacuated.

The most frequent site of pulmonary abscess or gangrene is near the surface of the lung. Dr. Lord found in 30 cases that the lesions in 28 were just beneath the pleura. In case of abscess due to a foreign body, the location is deeper. The history of the case, the physical signs and the use of the X-ray, will usually afford a correct diagnosis and locate the lesions. The treatment is essentially surgical, and the earlier resorted to the more favorable the prognosis. If performed early, drainage will cure most cases.

In a man 60 years old with an abscess in the lower posterior part of the left lung following a severe attack of pneumonia, I drained through the eighth mid-auxiliary intercostal space. On opening the abscess about 75 c. c. of bad smelling greenish pus was evacuated. A soft rubber tube was introduced. Drainage was kept up for about four weeks, when the discharge of pus had about ceased. There had been sufficient pleuritis to produce adhesions between the chest wall and the inflamed surface of the lung. The patient made a complete recovery.

About five years ago I was called to see a Mr. M., aged 51. About four weeks previous he had been taken with a pneumonia. Four years before he had a pneumonia on the same side. At the time I saw him he had a gangrenous abscess in the lower lobe of the right lung. He was expectorating a foul smelling pus. Was septic, with a temperature of 102 F, and had profuse sweats, etc. Through an aspiration I drew off about 150 c. c. of pus. The patient improved but the abscess soon

refilled. I then resected a portion of two ribs, made a free opening, and drained. This gave him considerable relief. His temperature became normal, his sweats ceased, he gained strength and the discharge diminished. In about two months the ribs reformed and the opening in the chest wall became too small to permit of sufficient drainage. During my absence my assistant, Dr. McNeil, enlarged the opening. This gave him relief. On my return I made an extensive rib resection and removed most all of the lower lobe of the lung. The patient made a good recovery. All his symptoms improved. The bronchial fistula which had persisted from the time of the first operation closed. His expectoration entirely ceased. In a few months only a small cavity remained with a slight discharge, but about this time a new infection took place and he died later of sepsis. Now I would fill the small cavity with bismuth paste, which I believe would effect a cure.

Dr. Perthes (Leipzig) advises in Chronic Abscess of the Lung to open the abscess by pneumotomy and to drain it; the procedures which are calculated to obliterate the abscess cavity, however, should be postponed to a time when the general condition of the patient is better. (Several months to a year.)

(2.) Pneumotomy for the opening of a chronic abscess of the lung should be performed by the "two stage operation." The first act, resection of the ribs and suture of the pleura, is performed under narcosis while the abscess is empty; the second act follows a few days later and consists in exploratory puncture through the wound with an aspirator needle; (for this the abscess cavity is allowed to remain full), and in the opening of the abscess without narcosis.

(3.) For the final operation, which is to obliterate the abscess cavity, we have to consider the total extirpation

of the walls of the abscess, and the healing (grafting) of a muscle and skin flap upon the wound of the lung.

*Pneumotomy.*—Samuel Robinson has shown by animal experimentation that death occurs as a rule after the removal of a lobe or all of one lung from two causes. Either a leakage of the bronchus producing tension-pneumothorax, or by a transudate filling the cavity that is left by the removal of the lung, mechanically interfering with the action of the heart and the remaining lung. Willy Myer treats the bronchial stump in the same manner as the stump of the appendix in appendectomy. He crushes the cartilage, folds in and sutures over the stump. It is well to ligate the bronchus as far away from the mediastinum as possible, leaving about an inch of lung tissue distal to the ligature. The lung tissue should be stitched with mattress sutures over the stump. Samuel Robinson has shown that the use of the pneumatic negative pressure cabinet facilitates the compensatory displacement of the diaphragm, mediastinum and lungs, thus filling up the chest cavity. If the pleural space is obliterated the accumulation of **transudate does not take place**. In these cases where the mediastinum has become stiffened by chronic inflammation, it may be necessary to excise several ribs to allow the chest wall to cave in. Excision of a portion of the lung for tuberculosis has been most discouraging.

Sonnenburg reports a patient completely recovered after the extirpation of a tuberculous focus in the lung. Murphy's statistics show 47 cases of tuberculosis operated on as follows: Thirty-four by incision and drainage, 2 pneumonectomies, 5 thoroplasters, 2 puncture and drainage. Recoveries 26, recoveries with fistulae 2, deaths 19. Tuffier has published some encouraging reports. Other surgeons have been less fortunate and today surgical treatment for tuberculosis of the lung is considered

to be of little or no value. Echinococcic cysts, and large bronchiectatic cavities are best treated by incision and drainage.

*Malignant Tumors.*—Parham, Rixford, Deruginsky and others have reported the successful removal of malignant growth affecting the chest wall.

The technique consists in surrounding the tumor by an incision, leaving as much healthy skin as possible. Divide subperiosteally all the ribs to which the growth is adherent. If the pleura is adherent remove it with the tumor. Allow the air to enter the pleural cavity slowly. It is well to let the patient come part out of the anaesthetic. Coughing will force the lung into the wound and helps to prevent pneumothorax. If a portion of the lung is involved in the growth it should also be removed. Close the wound with sufficient drainage.

Dr. Samuel Lloyd reports the successful removal of a small metastatic carcinoma from the surface of the lung. I know of no case of primary sarcoma of the lung that has been successfully removed.

*Heart Wounds.*—Patients live much longer after wounds of the heart than was formerly supposed. In the Index Catalogue of the library of the Surgeon General's Office, U. S. A., there are reported twenty-two cases of direct injury to the heart, all of which lived over three hours, seventeen lived over three days, one died on the fifty-fifth day and there are three well authenticated cases of recovery.

With our improved asepsis and surgical technique, we are justified in taking a bolder course than has been usually taught.

Surgical interference may save life. Surgical treatment in wounds of the heart has been too conservative rather than too radical. The situation of the external wound will aid us in making a diagnosis of injury of the

heart. Probing of the wound should be carefully done. The usual symptoms and signs, according to Podrez, are fainting, shock, free external hemorrhage, oppressed respiration, irregular, rapid and weak pulse, increase in cardiac dullness and vomiting. An exploratory operation is advisable when a wound of the pericardium or heart is suspected, to secure asepsis and check hemorrhage. The surgeon should not wait for reaction from shock before operating. Precious time will be lost. Operate at once.

Farina of Rome in 1896 is accredited with the first operation, and Rehn of Frankfort in 1897 with the first recovery, in suturing a wound of the human heart.

*Pericardicentesis.*—This operation is performed both for diagnosis and treatment. As a rule the left pleura lies under the sternum at the fifth costal cartilage, and sometimes as low as the sixth, while at the seventh there is an intervening space between it and the edge of the sternum. The most favorable position for introducing the aspirating needle is in the seventh intercostal space immediately to the left of the edge of the sternum. At this point one is less likely to injure the internal mammary vessels, the pleura or the heart. The fluid should be withdrawn slowly and stopped for a time whenever there is any disturbance of the heart or respiration. It is not best to withdraw all the fluid. Aspiration, if the pericardial effusion is non-infective, will usually result in a cure. If the effusion has become purulent, the exploratory puncture may fail to withdraw pus. In such a case the question of operative interference must be determined by the physical signs, the degree of dyspnoea, impeded and insufficient heart action and the degree of leucocytosis. When there is an infective exudate in the pericardial sac, incision and drainage are clearly indicated. Aspirations will not cure these



cases and should be used only for diagnostic purposes. Probably the simplest and most rapid exposure of the pericardium is accomplished by removing the inner part of the 5th or the 6th costal cartilage through an oblique incision parallel to its long axis. Through this incision an opening is made into the anterior mediastinum.

The presenting pericardium is best divided by scissors between two pairs of forceps. Elliot of New York speaks favorably of this method. The pus is allowed to escape slowly, so as not to disturb the heart action. As the flow of pus ceases, the opening may be enlarged and the cavity explored by the finger. No irrigation should be used. If possible stitch the divided edges of the pericardium to the skin. This assists drainage and diminishes the risk of infecting the anterior mediastinum. Carefully insert one or two small cigarette drains, so as not to interfere with the action of the heart.

Dr. Gibson of New York has reported a case of tuberculosis of the pericardium cured by incision and drainage. In wounds of the pericardium and heart, immediate operation is necessary and the method carried out should be simple and uncomplicated.

The following operation described by Kocher and reported by Binnie in his recent work on surgery, is simple and can be performed quickly:

"Make an incision down to the bone from the middle line of the sternum outwards towards the left side, at the level and following the line of the sixth costal cartilage. If required, the incision may extend to the left mammary line. (2) Separate the perichondrium and all the soft parts from the sixth costal cartilage and excise the cartilage. This exposes the triangular muscle of the sternum with the mammary vessels, which are ligated if necessary. Divide the tendinous insertion of the triangular muscle into the sternum. The dense,

glistening pericardium now lies exposed, and if drainage alone is required, it may be opened, and the operation is complete. If more room is required: (3) From the sternal end of the horizontal incision cut upwards in the mid-sternal line to the desired extent (usually to the level of the second rib). (4) Separate the periosteum and soft structures from the sternum to the left of the median line. Divide the fifth, fourth and third left costal cartilages at their insertions into the sternum. (5) Through the horizontal wound push the exposed margin of pleura outwards. Gradually lift up the fifth and even the fourth and third costal cartilages, slowly and gently pushing back the pleura from their deep surface. (6) After separating the flap from the pleura, fracture or divide the costal cartilages in the flap, at their junction with the corresponding ribs. When this is done, the flap can be completely reflected. (7) Split the pericardium along the sternal margin and laterally along the fifth interspace. This gives access to the heart from the auricles to the apex of the ventricles. If more room is desired, (8) Excise a sufficient portion of the sternum by means of rongeur or bone forceps.

The pericardium being open, wipe away blood-clots which may be present; search for and suture with catgut or silk any cardiac wounds. Do not include in the suture a coronary artery. Close the pericardial wound with or without drainage. Suture or drain any pleural wounds which may be present. Don't waste time by trying to evacuate thoroughly blood from the pleural cavity; nature may generally be relied upon to attend to that better than can the surgeon.

The principles of operation on pericardiac and cardiac wounds may be summarized as follows: (1) Cleanse. (2) Enlarge the external wound. (3) Freely expose the injured pericardium

by excision of portions of the ribs and sternum. (4) Attend to hemostasis. (5) Open the pericardium and remove effused blood. (6) Attend to cardiac wounds if present. (7) Close external wound with or without drainage.

Dr Charles H. Peck has tabulated 160 cases of suture of heart wound with 102 deaths and 58 recoveries, a mortality of 63.7 per cent. Of 112 cases, 67 had infection of the pleura or pericardium or both. Of these 41 died and 26 recovered. The sepsis was doubtless due to the hurried preparation of the operative field and to want of proper technique, on account of the haste that is necessary in these cases. Dr. Peck reports the recovery of a negro woman, 24 years old, who had been stabbed with a knife, 45 minutes before operation. The wound was over the junction of the left third costal cartilage, with the sternum, the cartilage was completely severed. The heart sounds could not be heard and there was no pulse at the wrist. Respiration was shallow and the patient was in profound shock. On opening the chest the stab wound in the pericardium was found to be close to the sternum. The pericardium was opened by a three inch incision. Dark blood escaped with a gush and the anaesthetist noted that the pulse could immediately be felt at the wrist. By enlarging the pericardial incision and lifting and rotating the heart slightly to the left, a wound in the right auricle was brought into view. With each heart beat, dark blood spouted two or three inches. The wound was closed with four No. 0 Chromicized catgut sutures. The wound was closed without drainage.

Intravenous saline infusion, given while the operation is in progress, is the most effective stimulation. Heart massage to resuscitate the heart beat has been employed with apparently some benefit in several instances. It

should be given a trial before abandoning the case as hopeless.

It matters not whether the sutures are placed or tied during systole or diastole.

Blood in the pericardium, even if small in amount, will cause irregularity and quickening of the beat due to the viscosity of the blood and the mechanical obstruction which it offers to complete diastole. Bernheim states that it is not necessary to completely close the opening in the pericardium. If there is much dilatation of the right ventricle, which is sometimes the case, due probably to ether, and manipulation, it is best to close the pericardial opening only in part or not at all. A small amount of post-operative bleeding would cause but little trouble with an open pericardium. Bernheim reports that in thirty attempts made to produce mitral stenosis in dogs, ten recovered and were allowed to live from a week to three or four months. Of these, nine were operated for relief of the stenosis and only one made a perfect recovery.

Inflammatory lesions and other surgical conditions of the posterior mediastium, can best be exposed by Nassilov's operation.

Exchange Building.

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## MEDICAL EDUCATION.\*

BY R. N. LOONEY, M.D., PRESCOTT, ARIZONA.

### *Gentlemen of the Arizona Medical Association:*

Notwithstanding all that has been said and written in recent years about medical education, it is a subject that needs no apology. The acquirement of thoroughly trained and capable medical men is of vital importance to the future of the medical profession, and anything which tends toward that end assuredly has the endorsement of every thoughtful practitioner.

A recent writer tells us that among the schools usually included in the term medical colleges "there is a most amazing variety of standards. There are several, the entire equipment of which consists of a blackboard, a table and some chairs. There are some which merely drill their students in answering questions asked at State Board examinations, having no use for laboratories and clinics. Meanwhile the graduates of these schools usually succeed in pass-

ing State License examinations. There are colleges which grant the degree after a course given in the two and one-half or three hours at night for four years of thirty or forty weeks each, which to equal the actual time spent by students in our day school would require from twelve to fourteen years. There are still colleges at which ungraded courses of lectures are given year after year to all classes alike. There are legally chartered medical colleges located in towns so small as to make clinical material seriously limited or entirely lacking. There are several in which no training in obstetrics is given and more at which no postmortems are seen by the students and where there is no opportunity to study gross pathological specimens."

Our first medical schools, those of Pennsylvania, Columbia and Harvard, were modeled largely after those of Edinburgh and London, and were good

\*Presidential address delivered before the Arizona Medical Association, at Phoenix, April 20th, 1910.



schools, but unfortunately after the War of the Revolution there sprang into existence a peculiar American type of medical school. With the enormous and rapid development of our country, which in a little more than a hundred years has grown in population from three to eighty millions and in extent from a narrow strip on the Atlantic seaboard to the enormous sweep of land extending from the Atlantic to the Pacific, there came an enormous demand for physicians from the thousands of cities and towns which sprang into existence.

This legitimate demand led to the establishment of a great number of medical schools all over the country. Unfortunately this demand was so urgent that the medical school preceded the high school, college and university and marched with the church in the van of the wave of population, which spread over the land. Most of the medical schools developed independently of any university and were owned and controlled by small groups of medical men, who in many instances conducted the schools as business enterprises for what money and reputation they could make out of them, and for a time teaching medicine in this country was a profitable business. It must not be supposed, however, that these schools were necessarily all bad. Many were controlled by men of high ideals, by men who became great teachers and left an impression on the medicine of their day—such men as Gross and Flint, Van Buren, Davis, Gunn and many others. Some of the better types of these schools, like Bellevue, Jefferson, Rush and others, did an invaluable service in furnishing thousands of men well trained in the medicine of their time who in war and in peace served their country well.

But the principle of conducting medical schools as commercial enterprises

was of course wrong, because it led to competition for students and resulted in the reduction of fees and the time of study, in the accepting of men without preliminary education and in the graduation of unfit men. The result has been that in the United States today we have more medical men per capita and more medical schools than any other country in the world. In fact, we have almost as many medical schools as all other countries combined—144 to 165 for the rest of the civilized world, and we maintain a proportion of one doctor to 568 people while in Europe the proportion is 1 to 1500.

That these schools fulfilled a purpose in the past cannot be denied. To some of them with high ideals the profession is much indebted and at the present time we have a limited number of schools which furnish thorough training and a few which are equal to any in the world. But a large number still conform to low grade standards while the necessity which called them into being has long since passed away.

The wave of settlement and civilization has finally spread until there is no longer a frontier. Still the supply of physicians far exceeds the demand. The excuse, therefore, for low standards of medical education and of medical colleges operated for profit no longer exists. Medicine, too, has changed. The known facts of medicine thirty years ago might have been taught in a two years course of didactic lectures by a few men. Today the known facts in medicine, which must be mastered before a student becomes a qualified practitioner, require much more time, require a thorough preliminary preparation, require a thorough laboratory and hospital training and, last but not least, require thoroughly skilled and capable teachers.

To meet the demand of modern medicine, the medical graduate hereafter

should be one whose preliminary training, besides a high school course, has included at least one year's college work in physics, chemistry and biology. His medical training should have been in a medical college fully equipped with all the extensive apparatus necessary for the teaching of modern anatomy, physiology, pharmacology, bacteriology and pathology; in a college which has experts paid to devote their entire time in charge of these laboratories; in a college which has hospital and dispensary facilities in such abundance as to allow of a carefully graded course even in clinical instruction, and in a college which offers thorough laboratory courses in clinical diagnosis in connection with the study of hospital and dispensary patients. These requirements would not be unreasonable.

The time has certainly arrived in this country when the medical profession and the public should unite to demand thorough training of its medical men. We should insist that medical standards be as high and medical training as thorough as in any other civilized countries.

All European medical schools are medical faculties of universities or they are under the direct control of universities, and there are no proprietary schools such as predominate in this country. These schools are conducted on such uniform lines that a student can pass freely from one university to another, the work of one being recognized by all. The result of this scheme of education is to turn out a high average of medical men.

Unfortunately, in the United States, with its 144 medical schools, there is no national control of medical education. Medical legislation is in the hands of fifty state governments and each state makes its own medical laws and executes them as it sees fit, with the result

that there are fifty different standards of control. The reorganization of the American Medical Association, however, has developed a body of 80,000 medical men, which organization represents the best element of the medical profession, and it is within the power of the profession thus organized to demand and secure proper medical legislation in each state and to see that it is properly enforced. Without question the securing of more reasonable standards of medical education is at present the most important function of the American Medical Association and of the state medical societies. But it is not a matter for societies alone. It is one in which every qualified physician in each state should take an active part; for certainly in the interest of public health and for the prevention of disease, no movement is of greater importance than that which will secure for a country thoroughly qualified medical men. Fortunately the trend of events at the present time is all towards higher standards and greater and more perfect facilities for medical training. The tendency among medical schools is more to the consolidation of established schools than to the establishment of new ones. Numerous mergers have been brought about in recent years, better equipped laboratories have been provided, better trained teachers have been employed and numerous endowments secured. It may be said, then, that the outlook for medical education in this country has never been so bright nor full of promise as at the present time. Still many problems remain to be solved and the solution of them is worthy of the active interest and best efforts of every physician who has at heart not only the improvement of the profession itself, but also the health and general welfare of the public at large.

## EARLY DIAGNOSIS OF TRUE GASTRIC LESIONS.\*

BY HENRY H. LISSNER, M.D., LOS ANGELES.

Diagnosis of early gastric lesions is one of great importance and I would ask you to bear in mind the discussion on secondary gastric lesions before the Society at its last meeting. The points of differentiation between gastric lesions and gall bladder, liver, appendix, kidney and intestinal disease, were so thoroughly covered that I feel justified in confining my remarks to those conditions which are essentially gastric in origin, without entering into a discussion of any of the subjects above mentioned. There are also many gastric lesions which we will be unable to discuss owing to their great number. I refer particularly to the gastric neuroses. If one scans the classification found in Osler's Modern Medicine, and adopted by most text-books, which divides these conditions into I—secretory; II—sensory; III—motor group; with several subheads; or adopting the classification suggested by Boas into I—irritative group; II—depressive group; one finds sufficient material with which to be occupied for some time, and since the majority of these conditions are interesting from a purely medical standpoint, I think it fit to attempt a discussion of those conditions of the stomach which are of importance from a surgical point of view as well.

Before leaving the subject of the gastric neuroses, there is one condition I would mention particularly, because of its relation to, and differentiation from, gastric ulcer, i. e.,

## HYPERCHLORHYDRIA (OR HYPERACIDITY).

This condition occurs as well in organic as in functional disturbances of the stomach and is the cause of considerable discomfort to the patient and worry to the physician. A case in point may be of interest. H. G., chauffeur, 32 years old, of highly neurotic temperament, consulted me two years ago

with reference to severe epigastric pains and general abdominal tenderness.

## FAMILY HISTORY.

Mother has chronic gastritis. Father died of heart trouble and paralytic stroke. Brother died T. B. *Habits:* smokes three cigars daily; chews five cent piece of tobacco daily; started chewing tobacco at six years of age. Diet, plain food, no pies or pastry, "because they don't agree with him." Typhoid in '93; ever since then has blood in stools or immediately after. (Patient's statement.) Denies venereal infection.

## PRESENT HISTORY.

Stomach trouble ever since sixteen years of age; began with pain and vomiting. Pain is always relieved by vomiting, which is very sour. Heartburn always precedes pain, which is spasmodic in character. Food causes pain sometimes, but principal pain comes on three or four hours after food and is relieved by eating. He always carries a pocket full of crackers with him so as to control pain; chewing gum also gives relief. Pain extends up into throat and sometimes is like girdle sensation. He has occipital headaches and pains over precordia; pain in limbs, twitching and jumping of muscles. Has fears of paralytic stroke, same as his father had; paraesthesias, consisting of numbness and tingling are felt. Always worries about engagements, that he will fail to meet his people on time.

Bowels, irregular; stool ribbon like when soft and scybalous when constipated. No nocturnal urination.

Exam.—Eyes, React O. K. Knee jerks present, no Romberg. Other nerve symptoms negative.

Lungs, normal; heart, 70; full pulse, sometimes intermittent, but otherwise nothing found.

\*Read before the Medical Symposium Society of Los Angeles January 20, 1910.



## ABDOMEN.

Tense, extremely painful and tender. Can't stand slightest pressure over epigastric region. No localized tenderness, but sore all over. Stomach not enlarged. (Percussion and inflation.) He would not allow a tube to be passed, so no examination of stomach contents was made. No occult blood in stool on several examinations. Examination of rectum and sigmoid (by Dr. F. S. Dillingham) shows normal condition; prostate enlarged. He was put on lacto vegetarian diet and given milk of magnesia, bicarbonate of soda and mucilage acacia, at different times. He has stopped chewing tobacco; weighs more now than ever before, but he still has some pain when stomach is empty. There remains a tendency to hyperacidity, but the general condition of the patient has greatly improved.

The points of differentiation then between ulcer and hyperacidity are the earlier onset of the pain with relation to the ingestion of the food, in ulcer, and relief from pain by food in hyperacidity, the presence of localized epigastric and dorsal pain and the presence of blood, either occult or apparent in the vomitus, and the presence of occult blood in the stool. It should be remembered, however, that a small amount of blood may appear in the gastric content due to injury of the mucosa by the stomach tube, and its presence demonstrated by the occult blood test or microscope. The presence of hyperacidity in gastric ulcer is not so common as one previously supposed and cases of ulcer of the stomach are recorded where this condition was not present. Ewalt reports as follows in 132 cases: Hyperacidity in 34.1%; normal acidity in 56.8% and subacidity in 9%. Other men give figures similar in nature, all of which when summed up lead one to think that with such a varying factor one should be reticent in diagnosing gastric ulcer on finding hyperchlorhydria alone. The personal

equation plays an important factor in the determination of reactions, particularly where these reactions are decided upon the production of certain colors in the reagents used. Upon what symptoms and findings then are we to base our diagnosis of

## GASTRIC ULCER.

Certain etiological factors, such as anemia, infections, trauma, burns, error in diet, circulatory disturbances, etc., may be of assistance, but the detailed discussion of these causative agents would carry us too far.

The symptoms from ulcer of the stomach vary with the location of the ulcer, the most frequent site being the pylorus and lesser curvature.

In general the symptoms complained of are dyspepsia, fullness, weight, distension, gaseous eructations, extremely sour where hyperacidity is present. Special symptoms are tenderness, localized to a certain area, particularly below the Xyphoid cartilage, or a little to the left of the median line. This tenderness can be so localized that the painful spot can be covered by the tip of one finger. Muscular rigidity may also be elicited during the palpatory process and is important.

Vomiting is a less constant symptom than pain, and may even be absent altogether; when present it occurs immediately after the taking of food, or may come two to three hours later when the digestive process is at its height.

Blood is frequently present in the vomitus. It occurs in about 25% of all cases. The condition in which blood appears in the gastric contents, other than of gastric origin, were mentioned at the last discussion. So in speaking of blood I take it that we are dealing with uncomplicated conditions. Occult blood, and by this I refer to blood which is not visible to the naked eye, or microscope, and whose presence is demonstrable only by finer chemical tests, has come to be one of the most

important of the laboratory findings in the diagnosis of ulcer of the stomach. It may be demonstrated either in the vomitus or feces. The occasional presence of occult blood is in favor of gastric ulcer; its constant appearance speaks more for carcinoma. Constipation is the general rule in ulcer. Diarrhoea can be counted as a symptom against ulcer. To recapitulate then, the principal diagnostic points in favor of the ulcer: 1st, localized tenderness; 2nd, pain immediately after food or during height of the digestive process, not relieved by pressure; 3rd, vomiting immediately after food; 4th, hematemesis, extreme or varying from severe hemorrhage to the intermittent appearance of occult blood in the vomitus and stool. The value of the occult blood test should be determined by several examinations.

The complications of gastric ulcer, such as perforation, pyloric stenosis with dilatation, hour glass contraction of the stomach, etc., are conditions which in themselves are worthy of separate consideration, but I will pass over these in order to take up the discussion of the one condition of the stomach which causes us no end of worry and which on account of its greater frequency is entitled to a much more detailed consideration, namely

#### CARCINOMA OF THE STOMACH.

When one considers that about one-half of all cancers arise in the stomach, it becomes apparent that our greatest efforts for early diagnosis should be directed to this organ. Many remote symptoms, not-pointing to stomach disease, may be overlooked. Simple anemias, edema from causes not to be found in either the heart or kidneys, gradual loss of weight—in fact, there may be no symptoms pointing to stomach disease, no complaint about indigestion and no sign other than a progressive loss of weight, which upon careful examination of the patient one must admit that no definite lesion of any par-

ticular system accounts for. In such cases, especial attention should be paid to the stomach and every possible diagnostic means employed to discover or rule out such a condition. A history of indigestion, flatulence, discomfort after food, progressive anorexia, should not be passed over too lightly, since these may be the precursors of the more serious disease which develops insidiously and is so destructive in its course. The early examination of the stomach contents for free hydrochloric acid is not so important a factor in the diagnosis of malignant disease of the stomach, as was previously supposed. So many conditions influence its secretions. It has been found most frequently in those cases of cancer which have developed on the base of an old ulcer, and has also been found in very advanced cases. The location of the cancer plays a very important role in its presence or absence in the stomach content. Still another point with regard to the Free HCl presents itself. When one considers the experiments of Pawlow on animals, and the classical observations of Dr. Lavinson on a young girl with gastric fistula (*Archives of Internal Medicine*), the thought is not very remote: what effect does the suggestion of a passage of a stomach tube and the test meal have on the psychological stimulation of the flow of gastric juice in the patient under observation? It would seem that such a suggestion would rather inhibit the normal flow of the gastric secretion, because no matter how thoroughly patients may give themselves over to the ordeal of a stomach lavage, there still remains a certain objectionable element which they are, for the most part, unable to overcome. I have not come to this conclusion merely on the grounds of theoretical reasoning, but have observed the inconstant finding in the stomach contents of a young girl, who at the first analysis, when I had expected to find an increase of HCl, had a decided

decrease, and at subsequent examinations, as she became more used to the tube, the stomach content more nearly approached the normal, as we understand it at present.

The presence or absence of Free HCL is of diagnostic value, then, only as it is found constantly in a series of examinations and under the same psychological stimuli, as closely as they may be controlled.

The organic acids (lactic, butyric and asctic) and the lactic acid bacillus are found only after the disappearance of the HCL from the stomach content, and while their presence in the stomach is generally considered to mean malignant disease; the fact must not be overlooked that they are also present in benign stenosis of the pylorus, dilated stomach and in the conditions of the stomach associated with decreased motility, i. e., enteroptosis. When associated with carcinoma they are usually a late sign, the disease having advanced beyond operative possibilities. As has been previously stated, blood is always present in the stomach content in malignant disease, while extensive and severe hemorrhage seldom occurs (1%), except in conjunction with ulcer.

Vomiting as an early sign depends more particularly in those cases where the carcinoma is situated at the pylorus or is obstructive in nature. If on the lesser curvature or posterior wall there may be no vomiting associated with the condition, but nausea in such cases is a constant symptom, the patient only obtaining relief after self-induced emesis.

Salivation as an early symptom may be of importance. The patient suddenly complains of the filling of the mouth with saliva which accumulates very rapidly, has no relation to psychological stimuli and may persist for from ten minutes to one hour; such conditions are frequently seen in pancreatic disease, but upon proper investigation, disease of this organ may be ruled out.

Emaciation is the rule in gastric carcinoma; it is usually progressive; while under gastric lavage, proper diet, etc., the patient may improve. It is only temporary, however, for the loss of weight continues. Taken as an early sign, slow loss of weight, even in the absence of gastric symptoms, should at once arouse our suspicions and cause us to give especial attention to the stomach. In conjunction with malnutrition, anemia, progressive in type should be mentioned. It may even become so severe that the blood picture cannot be differentiated from progressive pernicious anemia, and my impression is that the anemia is more pronounced in those cases where the carcinoma is situated on the lesser curvature and posterior wall, rather than in the obstructive form. In the first mentioned class of cases there is also a progressive asthenia, which in itself is extremely suggestive. The patients complain of fatigue on slightest exertion and at times even speech is an effort, the fatigue suffered being out of all proportion to the energy used. The presence of a palpable epigastric tumor, freely movable and whose location in the abdomen changes with the altered position of the patient, provided there are no adhesions, means gastric cancer.

Further aids to palpation are: examination in a hot bath, under ether, and also in various positions, i. e., knee chest position, lateral positions with flexed extremities, etc. It should be borne in mind, however, that a palpable tumor usually means an incurable case, and since our chief aim is directed toward an early diagnosis, we must not lay too much stress upon the absence of tumor, after having exhausted every possible means to find it, as excluding a gastric carcinoma. Even as in heart disease too much importance is given to the presence or absence of a murmur as of diagnostic value, in determining the nature of a suspected cardiac lesion, so in the diagnosis of carcinoma of the



stomach we are prone to exclude the condition and dismiss it from our minds if we fail, after several careful and painstaking examinations, to find a tumor. Carcinoma situated in the lesser curvature or posterior wall, even with the extensive involvement may not be palpable, and one may mistake the carcinoma on the lesser curvature for the liver border.

I have not presented in this brief discussion all of the symptoms found in classical cases of this disease, but have attempted to bring to your attention more particularly those points in early diagnosis and possible error in diagnosis which have seemed to me to be of greater importance, since at best from the status of our present diagnostic acumen the disease still has the upper hand. I have also purposely avoided the subject of treatment, hoping this will be brought out in the general discussion.

The following case may help illustrate some of the points I have been trying to call to your attention.

J. C., age 41, book binder. Family history no bearing on his case.

#### PAST HISTORY.

Scarlet fever when child. Otherwise never sick until present trouble. Smokes five-cent sack Durham in four days. (12 cigarettes daily.)

#### PRESENT ILLNESS

Began over one year ago with pain in stomach, which has been thoroughly constant ever since. Has some nausea, but never vomited unless he puts fingers in throat to make himself vomit so as to obtain relief from pain. Vomitus is very sour.

He has never vomited food taken on previous days. Pain in stomach has no relation to the taking of food. "It may come suddenly before breakfast." He has considerable "gas on stomach and always feels more comfortable if he can belch." Appetite poor. Bowels constipated at times. Has diarrhoea, which

begins suddenly and terminates in same way. He may have six or seven movements in one day and be constipated for several days following. He has never noticed any blood in stool or vomitus. His best weight was 105, now 87¼. No cough, no night sweats at present, but had them three months ago. Heart palpitation for past two years. No swelling of feet. Urinates once during night. No difficulty in swallowing. His diet consists of plain food, toast, eggs, tea for breakfast; luncheon, meat, potatoes, bread, butter, tea; dinner, meat and generally same as luncheon.

#### EXAMINATION.

Poorly developed and nourished, emaciation pronounced; dilated venules over nose; lips almost white; face drawn, brownish pigment on back of hands and neck; no pigment in mouth. Heart normal in size, systolic murmur, probably functional in character. Lung findings negative.

#### ABDOMEN.

Flat, liver not enlarged or palpable. Muscular rigidity over epigastrium; tenderness over pylorus and to left of median line, but no localized pain, no palpable tumor in stomach region. Movable mass probably transverse colon from its position, size and shape. Stool a week previous to his coming to me was very black.

July 2, '09. Stomach analysis, total acidity, .45, Free HCL, 20, combined acid 25. Food rests, pus and blood. No Boas Oppler bacilli.

July 13, '09. No Free HCL. Trace lactic acid, no Boas Oppler bacilli, pus and blood present.

July 17, '09. Free HCL, pus and blood, no Boas Oppler bacilli.

With the hope of finding a condition favorable to operative measures, I advised operation, which was accordingly done by Dr. Rea Smith.

The usual incision for operations on the stomach was made, and in attempting to pull the stomach into the oper-

active field, it was found to be firmly attached to the costal cartilages of the lower ribs on the left side. Passing the fingers into the incision, the hand came upon a mass, leading away from the point of attachment to the ribs and into the stomach wall from the lesser curvature; during this manipulation an enlarged omental gland came into view, so it was decided that a gastro-enterostomy was the only operation indicated and this was accordingly performed.

After operation, while the patient received some benefit in the way of less distress after food and relief from pain,

he developed a stubborn diarrhoea and lived several weeks, passing through a most pathetic condition of cachexia and general asthenia.

#### AUTOPSY.

Examination of stomach only. Stomach found adherent to costal cartilages of 8th to 11th rib, at site of old ulcer which had evidently ruptured and become adherent to ribs. Lesser curvature and portion of anterior stomach wall involved in carcinomatous growth, so called cauliflower carcinoma; sections of gland removed from omentum also shows carcinomatous change.

Lissner Building.

## COELIAC PAROTITIS.\*

BY REXWALD BROWN, M.D., SANTA BARBARA, CAL.

Case history: Miss J. K., aged 24, who had suffered much with backache, menstrual pain and general lassitude for several years—her hemoglobin estimate was 60%—was treated by laparotomy on July 4, 1908. The appendix was removed, also the right ovary, which was entirely cystic, and the uterus, which was in complete retroversion, was suspended by the round ligament method. There was nothing of moment in the immediate convalescence until the morning of July 8, when the temperature rose, reaching 102° on the evening of July 9. During the 9th the left parotid gland began to swell, and by night had assumed rather massive proportions, wholly altering the appearance of the face. The swelling was hard, very painful and tender—patient was able to only slightly open her mouth. On the tenth day, the right parotid became swollen to a moderate degree. The condition of the patient was distressing and rather alarming for a couple of days—the temperature ranged to over 103°. The abdominal wound was examined and found free from in-

fection, while pelvic examination revealed no infiltration or undue tenderness. Subsidence of the swellings appeared on the 12th, and both parotid regions returned to normal in about thirty-six hours, without there having at any time been fluctuation. On the 13th all sutures were removed from the laparotomy incision, which was a primary union. The patient was closely questioned concerning the possibility of her having acquired mumps, but without adducing one fact in support of such infection. Concern over our patient did not cease, however, for she ran a slight irregular fever until the 20th, when there was complaint of pain in the right side, and temperature went up to 103.4°. Pelvic examination disclosed a slight fluctuation in right fornix, which was opened under ether. There was a slight discharge of sero pus, temperature was normal by next day, and so remained.

Parotid tumefaction consequent to trauma and disease of the abdominal and pelvic viscera is seemingly of extreme rarity in comparison with other

\*Read before the Southern California Medical Society at Los Angeles, December 2, 1909.

complications in the wake of lesions to these parts. The subject was of much interest to Paget in 1886, who brought it to the attention of the profession. On the basis of certain clinical phenomena, he offered two or three theories to explain the production of the condition, and the literature since then—only a few contributions—has added really nothing of moment to elucidate the pathogenesis. Later observers have from wider knowledge gathered more facts in support of or against Paget's theories, and deeper researches into problems of physiology and metabolism have ushered in one or two new theories.

Present opinions show little consideration to the theory which makes parotitis a reflex phenomenon. Clinical evidence, such as the appearance of orchiditis and ovaritis in mumps, salivation in pregnancy, and the inhibition of salivary excretion in injury and disease of the digestive tract have led many to assume that there is some reciprocal nervous flow between the generative and digestive organs and the salivary glands, and that coeliac parotitis—so named by Dyball—is the manifestation in some occult way of the disturbed nervous current—a reversal perhaps. There is no evidence to support such contention from any experimental data, and even were such evidence at hand, it seems impossible of credence that disturbance in any of these organs through trauma or disease could so disrupt the harmony as to actually focus an inflammatory process in another organ of the bond.

A view held in much favor is that coeliac parotitis is merely a local infection of the gland by micro-organisms from the mouth by way of Stenson's duct—that the parotid glands become an area of lowered resistance from trauma, due to holding up of the jaw during anaesthesia, to dryness from depletion of fluids before operation, and afterwards, often from vomiting, and

reflexly from abdominal manipulations—the sympathetic theory will intrude itself—and perhaps from some action of the anaesthetic—that the bacteria of the mouth becomes in some way more virulent from intra-buccal insults, as the sponging out of saliva and vomitus, or application of tongue forceps and mouth gags, and readily enter the gland, which they could not do under normal conditions, as they would be swept away by the salivary flow. Singular it be, if infection from mouth be causative, that the submaxillary and sublingual glands are practically never involved, as the conditions for their infection seem practically identical. Too, parotitis is extremely uncommon in many acute infections when the salivary glands are dry and the mouth teems with bacteria.

The theory of pyaemia has had some consideration—that there has been localization in the parotid gland of infective material from the area of operation—hematogenous origin—has been urged. To controvert this theory are the facts that first, true surgical pyaemia usually selects many areas for manifestation—i. e., inflammatory swellings, with pus formation—almost never, however, involving the parotids; and, second, about one-half of the parotid swellings we are describing do not suppurate, and in the larger number of cases the operation area remains surgically clean.

The suggestion that toxic substances, products of abnormal chemism, may produce parotitis has a number of proponents. This theory collects in support of its contentions:

First: The many valuable facts brought to light in the modern studies of metabolism. The blood stream undoubtedly carries at all times many chemical bodies, outpourings from the various glandular systems, whose influences are exerted on organs in reciprocal relationships with those from which the bodies come, conducting to



the harmonious working of the entire organism. During injury or disease of any of the glandular organs, the secretions are often markedly modified, becoming toxic in nature, and have a deleterious effect on the other glands of the chain to the production of morbid phenomena.

Second. The parotitis may be due to action of toxic material of microbic origin. When both the parotids and ovaries or testicles are involved in infective mumps, the condition is probably dependent on the toxins of the undiscovered mumps germ. And in splanchnic parotitis developing post-operative in clean cases with all care given to aseptic technique it is possible that micro-organisms of low virulence may have been pre-existent, which were stirred to activity and toxine production by the operative manipulations, the toxins manifesting by parotid tumefaction.

Third. The known susceptibility of the parotid gland to various poisons circulating in the blood, as lead, mercury, copper, iodine, and ptomaines absorbed from the intestinal canal.

Why the parotid gland should be a seat of election for toxic action in accord with this toxic theory, leads to the belief that the parotid gland has been too much neglected in the study of internal glandular secretions—their normal and perverted activities. The parotid gland may have some special influence on metabolism. And in careful analysis of interaction of glandular function the idea of nervous tie cannot be altogether brushed roughly aside—the sympathetic nervous system is, too, a wide field for study.

Inasmuch as this subject is cased in much of conjecture, and any theory is tenable until disproved, you will pardon me if I suggest that perhaps some of these parotid swellings following operative procedures are cases of true mumps, complicating the convalescence.

It is well known that mumps does occur sporadically, and it is likewise known that the etiology and pathology is not yet an open book. In the case as outlined above, despite no history of exposure, it is not out of the realm of possibility that the double parotitis was true mumps. To explain the pelvic cellulitis—the patient was very anaemic, and the ovariectomy, though of simple technique, still further reduced the resisting forces in the broad ligament lymphatics, making the tissues a good culture ground for the mumps germ, which so often locates in that area, if we considered mumps a blood infection. Again, it may be some pre-existent germs were responsible for the cellulitis. I am loathe to believe that I introduced the infection from some failure of technique, and that the double parotitis was caused by infective emboli. If emboli were at fault the glands should have shown suppuration, of which at no time was there any indication.

Splanchnic parotitis cannot be looked upon with equanimity, for the mortality from the condition alone has been estimated at from 10% to 20%. About 50% of cases suppurate, and these particularly are in the danger zone. The suppuration may lead to extensive destruction of tissue, the parotid gland sloughing away, even into the masseter muscles. Pus may break into the external auditory canal, or a dissecting cellulitis may burrow through the structures of the neck, with its attendant features of thrombo-phlebitis, emboli and pyaemia. Pneumonia may result from inability to clear throat and bronchi by expectoration when the mouth is held locked by muscular infiltration.

Prophylactic treatment is based on the theory of infection from the mouth. It comprehends as little depletion as possible of body fluids by less fasting and purging before operations, by freer giving of liquids after operations—use of

continuous rectal salines—and scrupulous care in the antiseptic of the mouth before, during and after operative procedures.

Actual treatment when only the swelling is present is largely sympto-

matic and local, embracing the application of warm or cold preparations to lessen pain. A constant watch must be kept for the slightest evidence of pus formation, when the indication is to open at once and drain.

## ADENO-CARCINOMA OF THE CORPUS UTERI.\*

CARCINOMA.—Atypical proliferation of epithelium.

From a pathological standpoint there are two varieties of carcinoma. One type is that in which the squamous cells have multiplied in an atypical manner and have invaded the deeper tissues. This carcinoma is like the epithelioma which occurs at the junction of the skin and mucous membrane of the lip.

The other form is that in which the cylindrical cell glandacini of the interior of the cervix or corpus uteri multiply in an atypical manner, invade the interglandular stroma and thus conform to the carcinomatous type. These two varieties of carcinoma are therefore called

1st. Pavement cell carcinoma, squamous carcinoma or epithelioma.

2nd. Cylindrical cell carcinoma, adeno carcinoma or gland carcinoma.

This latter is the variety we are now studying.

ANATOMICAL CONDITIONS: The vaginal portion of the cervix is normally covered with stratified or squamous epithelium, which is directly continuous with the vagina and usually ends at external os, but may extend into the cervical canal for varying distances, which is especially true as women grow older.

The mucous membrane lining the body of the uterus has been termed the menstrual organ, and that it is not a mucous membrane in the strict sense of the term, but belongs to the so-

called "adenoid tissues." The atypical proliferation of the cylindrical cell epithelium of this mucous membrane and that lining the glands constitute the first step in the evolution of adeno-carcinoma of the body of the uterus.

The neoplasm as elsewhere consists of epithelium elements in a connective tissue base. In its development the boundaries of surrounding tissue are not respected, for it grows into the glands and vessels without being arrested by their enveloping membranes, extending most rapidly along the lines of least resistance.

The growth extends deeply into the muscular structures and many of the trabecula of the stroma contain unstripped muscular fibers. The cells in the alveoli are cylindrical and are often arranged around a central lumen as in glandacini.

The malignant growth may be of a villous character or may occur in the form of wart-like protuberances varying in size from that of a pea to a filbert.

The diffuse form in most instances involves the entire surface of the mucous membrane to the os internum, the cervix long remaining unaffected. Its papillary projections villi and nodules fill up the entire uterine cavity.

Carcinomatous infiltrations invades the depths of the muscular structure and penetrates it more or less deeply. As the disease progresses it either goes

\*The Practitioner will be glad to learn the name of the author of this paper. An earnest search has not given us the desired information.

towards the free surface and fills in the entire cavity while the depth of infiltration is but slight, or it penetrates the entire uterine wall with slight growth toward the cavity. Why the disease should manifest this form is undetermined.

Retrograde changes in cancerous growth show themselves often quite early. Cancer cells are prone to undergo fatty degeneration, more especially those remote from a supply of nutrition. In this way the central portions break down and a central depression is formed, and by virtue of these changes ulceration supervenes.

DIAGNOSIS: The early recognition of cancer of the uterus will afford the only hope for its radical relief.

While the first invasion of the disease is purely local, the clinical course indicates by the infection of surrounding tissues the supervention of a constitutional condition. It is therefore important that the practitioner should recognize the gravity of the disease at the earliest possible moment.

Carcinoma of the corpus uteri is in the beginning often impossible to recognize. There are no incipient symptoms, nor at any time in the course of the cancer are the symptoms pathognomonic. It is apt to appear between the ages of 40 and 50. Increased and irregular menstruation at this period is attributed to the menopause, but instead it is often and indeed commonly the first symptom of carcinoma uteri, and is the result of accidental injury to the cancerous tissue or to ulceration. The re-appearance of hemorrhage one, two or three years after the menopause is strong presumptive evidence of cancer and demands immediate examination. The loss of blood, at first commonly slight, occurs after straining at stool, or vigorous exercise or coitus. As the disease progresses the hemorrhage increases—may be nearly or quite con-

stant, may appear at irregular intervals or as a menorrhagia at the catamenia.

UTERINE DISCHARGES: The character of the discharge varies with the progress of the disease. The early discharge is watery, serous, transparent, inodorous. Later the watery discharge becomes fetid.

As the ulceration increases and the growth becomes friable, the discharge is more profuse, bloody, turbid, often purulent, and always of a most nauseating odor. This offensive odor continues in evidence to the end, and is characteristic of malignancy. The discharge is called "Carcinomatous ichor" or "cancer juice." All excessive discharges after the menopause should be regarded with suspicion.

Carcinoma involvement of the corpus uteri and of the structures around the uterus may give rise to sharp lancinating pains. These pains, although often considered as pathognomonic, are neither constant nor confined to cancer. They may be due to pelvic peritonitis, nature's effort to protect the general peritoneum from the invasion of the cancer. Pains may be due to pressure on the pelvic nerves or to actual involvement of the nerves in the carcinoma. They are commonly referred to the region of the pelvis, perinaeum or thighs, and usually indicate that the disease has passed the line of successful operative interference. The blocking of the cervical canal may give rise to hydrometra or pyometra and produces spasmodic uterine contractions, and pains like labor pains.

In adeno carcinoma of the cervix the disease very rapidly involves the entire glandular structure, especially when it has been previously diseased. Carcinoma of the body of the uterus is much slower in making its progress into the uterine wall and the entire uterine mucosa is frequently involved without much extension into the muscular structure.



In other cases the disease is seen making its way through the muscular structure and appearing beneath the peritoneum in the form of nests, or nodules, with resulting inflammatory reaction and development of adhesions. When the disease once invades the muscular structure it often extends rapidly in the direction of the peritoneum, and the whole organ becomes enlarged.

The utro-peritoneal glands and lumbar glands are early affected. The barriers of the internal os may be passed and the cervical canal be secondarily invaded. The disease may extend to the bladder or rectum—an event occurring usually, although not without exceptions, after preliminary peritoneal adhesions. The invasion of the parametria is commonly of late occurrence, and as a consequence death from uremia is more rare than in cervical cancer. Mutastic nodules may develop in nearly all the organs, the vagina furnishing a frequent seat of these formations.

Conjoined examinations, preferably with rubber gloves, shows nothing except some enlargement of the uterus in the early stage and this is the stage in which the life of the patient hangs on the thread of a prompt diagnosis. The whole question centers on the results of curettage and microscopical examinations and findings. Should no microscopical evidence of carcinoma be found on first examination this should be repeated with the recurrence of hemorrhage. In carcinoma the discharge always recurs promptly and the scrapings are much more abundant than in benign growths.

Advanced carcinoma of the body of the uterus is recognized by the foregoing symptoms and conjoined examination. The uterus is enlarged often two or three times its normal size. It is hard nodular and more or less fixed by adhesions, the result of the extension of the disease through the lymph chan-

nels to the parametria. The lower extremities become edematous from pressure and form thromboses of the pelvic veins. The absolute diagnosis of malignancy may depend on the microscope; however, advanced carcinoma of the body of the uterus is usually self evident.

**TREATMENT:** The treatment is radical when the carcinoma has not extended beyond the limits of entire removal. When this cannot be affected treatment is simply palliative.

**RADICAL TREATMENT.**—Hysterectomy—Vaginal and Abdominal:

Vaginal hysterectomy or removal of the uterus through the vagina may be performed when the disease is confined to the endometrium or body of the organ, and there is no appreciable involvement of the broad ligaments. When the disease has extended to the broad ligaments enucleation is more certain by the abdominal route.

In the vaginal route two methods of hemostasis are in use. First by ligature; second by forcipressure.

The technique of vaginal hysterectomy with hemostasis by ligature is as follows:

The patient having gone through with the preliminary work of preparation as required by the surgeon, such as rest, baths, cleansing of the bowels, douching the vagina, shaving the operative fields, securing normal action of all the emunctories, and anaesthetized, is placed on the operating table in the lithotomy position and the vagina and the vaginal portions of the cervix exposed by means of a suitable speculum. Any cancerous disease around the external os should be scraped off with the curette or burnt off with the actual cautery; the cervix plugged with a strip of gauze and the os snugly closed with sutures.

This being done the vagina should be again thoroughly washed out with green soap and a pledget of cotton or

gauze, followed by a thorough douching with a solution of lysol and sterile water. With the perineal retractor in place the os is again exposed and seized with strong vulsellum forceps and drawn out until the tissues are quite tense.

A free incision is now made around the cervix with the scissors or scalpel down through the mucous membrane to the fibrous tissue. The cervix is now drawn down firmly and the mucous membrane is peeled up both in front and behind with the thumb nail, denuding the cervix considerably beyond the cervico-vaginal junction, and exposing the base of the broad ligaments on either side. If the connective tissue does not yield readily to this method of dissection the curved scissors closed may be used instead; while bands that do not yield readily are clipped with the scissors. This dissection should be done rapidly and the bleeding, usually insignificant, may be disregarded. The cervix is now drawn forward against the pubes and the dissection is continued posteriorly until the peritoneal fold of Douglas' pouch is reached. This is opened and this is enlarged by introducing the two index fingers and tearing laterally to the broad ligaments. A large gauze sponge, with a string attached to facilitate its removal, is introduced after sweeping the index finger over the posterior surface of the uterus and adnexa to separate any adhesions that may exist.

A like maneuver is now executed anterior to the uterus and a long, narrow anterior retractor is inserted between the bladder and uterus to lift up and protect the bladder.

The uterus is now suspended only by the broad ligaments on either side, which contain the important blood vessels that are to be secured before it can be removed.

The broad ligaments are sometimes tied off *en masse*; at others in sections.

Drawing the uterus down firmly to the right the index finger of the left hand can often be hooked over the left broad ligament and tied *en masse*, the same procedure being followed with the left. More commonly, however, the uterine arteries are ligated first. This is done by passing the left index finger around to the base of the left broad ligament as a guide and the ligature is then passed around the uterine artery either with a surgeon's needle passed blunt end first or an aneurism needle. The artery being tied the intervening tissue is divided with the scissors close to the uterus. The same procedure applies to the right uterine artery.

This leaves the uterus attached by the upper half of each broad ligament only, and if not too large, the fundus can be rolled out into the vagina through the anterior incision by means of bullet forceps grasping the fundus high up, making traction with the forceps on the fundus while the os is being forced back into the vagina posteriorly.

This done clamps may be applied on the broad ligaments from above, the broad ligaments divided and the uterus removed. The uterus being removed the vessels are secured with ligatures and the clamps taken off when if any bleeding points show they are ligated.

The pelvis is now flushed with sterile warm normal salt solution, all clots removed and sponged out until the water returns clear. The manner of dealing with the stumps varies according to their condition. If they are sufficiently long they are drawn down into the vaginal wound by the ligature which has been left long, or through the peritoneal opening and sutured end to end.

After uniting the anterior and posterior margin of the peritoneum, the stumps then being covered with the flaps of mucous membrane from the cervix. If, as is commonly the case, the stumps are too short for this method

they must be treated intra-peritoneally. In these cases the vaginal wound must be treated as indications require. Commonly sufficient sterile gauze is packed into the pelvis to fill the space occupied by the uterus, leaving the end long, the vagina is packed with sterile gauze, the urine drawn, a T bandage applied and the patient put to bed.

The technique of vaginal hysterectomy with hemostasis by force-pressure differs but little from the description just given, except in the use of clamps to control hemorrhage instead of the ligature.

#### ABDOMINAL HYSTERECTOMY FOR ADENOCARCINOMA.

If there exists, as is frequently the case, a carcinomatous condition of the os and cervix the patient should be placed in the lithotomy position and all diseased tissues curetted away and the os closed with sutures after plugging with sterile gauze; following this a thorough cleansing of the parts, and if conditions permit a stripping up of the mucosa as in vaginal hysterectomy, as high as the uterine arteries, which are tied off. The vagina is then packed with sterile gauze. This procedure greatly facilitates the final removal of the uterus.

This being done, when practicable, the patient is placed in the Trendelenburg position and an incision made from an inch to an inch and a half above the symphysis to a short distance below the umbilicus, through which the intestines are pushed toward the diaphragm and walled off with gauze.

The uterus is then drawn up and each broad ligament clamped. Cut the broad ligaments internal to the clamps, securing bleeding from the uterine side by hemostats. Join the extremities of the broad ligament incision by one through the anterior peritoneum and strip it and the bladder away from the cervix and broad ligament. If not already done find and secure the uterine artery on each side with hemostats and cut between them and the uterus.

Tilt the uterus to one side and open into the vagina, if not already open, making sure the opening is well below the infected area. Through this opening the cervix can be followed around and severed from the vagina.

Ligate the vessels, carefully inspect for infected glands, stitch the peritoneal folds over the vagina, remove all gauze pads; cleanse the pelvis and close the abdominal wound. Cleanse the surface and apply dressing.

## THE LOS ANGELES COUNTY HOSPITAL.\*

Your Committee on Public Institutions and Organizations concerned with the care of the sick of Los Angeles County begs leave to submit a partial report, dealing somewhat briefly with the Los Angeles County Hospital.

We feel the county has reason to be congratulated on at last having obtained an institution with something like sufficient buildings and equipment to make it at least somewhat acceptable to the profession and to the community.

We believe the Board of Supervisors

of our county has acted with excellent judgment in appropriating the money which has been voted for the *erection of a new administration building, of surgical wards, an operating pavilion and of a tuberculosis building.*

We are glad to note also the *increasing efficiency of the resident administrative staff*, and in this connection wish to go on record also as expressing our opinion that the *present attending staff* of the hospital has been productive of considerable good, and as time goes on

\*Copy of a report submitted to the Board of Councilors of the Los Angeles County Medical Association and by it endorsed and ordered sent to the Los Angeles Board of Supervisors.



can be made to serve an even more valuable part than in the past.

There is, then, much to commend, and what we shall now say in the way of critical discussion is merely intended in the way of suggestion. It is quite possible that some of the changes advocated may, in the light of later knowledge or experience, be deemed undesirable.

First, *as regards the erection of new buildings*, we believe that all of the brick buildings which have been erected in recent years have basements, and nearly all of which are now occupied by patients, would be better if the basements had higher ceilings; and further, that in these *basement wards* or basement rooms especially an attempt should be made to have all of the windows flush with the ceiling, or, if that is not desirable, then to place over each window a transom that would be flush

with the ceiling. This would go far toward providing better ventilation than can now be had in these basement wards.

As regards the *wards on the second and third floors*, we believe that in a general way the money that is spent in the present additional extra height which gives little or no extra ventilation, could be more wisely expended in the equipment of the building, or in making the basements more sanitary from the light and ventilation standpoint. The four or six foot air well above the tops of the windows of the upstairs wards really adds nothing to the efficiency of the ventilation, but simply represents an expenditure of money for material which in three-story buildings would be sufficient to almost pay for an additional story or ward. In these upstairs wards—as in the basement wards—we believe that window



R. W. Pridham                      Chas. D. Manning  
H. D. McCabe                      C. J. Nellis                      S. T. Eldridge

LOS ANGELES BOARD OF SUPERVISORS,  
The Governing Board of the Los Angeles County Hospital,

flush with the ceilings or that transoms above such windows which would be made almost flush with the ceilings would add greatly to the purity of the air in these wards.

We would also suggest that in the erection of any new buildings, particularly if such buildings are to be to the rear of the present buildings, as is the present tuberculosis pavilion, that they be arranged with flat roofs which can be used for *roof gardens*. The new tuberculosis pavilion, for instance, would have a greater efficiency if this had been done, and at no material extra cost.

The *new tuberculosis building* is certainly a vast improvement on the old building which was used for these patients, but if this building is to really be of value during the coming summer it will be necessary to *screen* in the outside porches, preferably with copper wire screening, as that would be more economical in the long run. Unless this is done, the flies will be so bad that it will be impossible for the patients to live the out-of-door life and to sleep on these verandas.

There is an urgent need also for reclining chairs, preferably of a wicker style such as those which are used by the Barlow Sanitarium and which can be had for about \$10.00 each. These far advanced tuberculosis patients at the County Hospital should be in bed or in *reclining chairs* most of the time, and to attempt treatment of such patients when they are up and about is to go against all that we have learned in the care of this disease. At the present time there is not a single such chair for the more than one hundred patients.

The *roads* by the brickyards, adjacent to the tuberculosis building, from which perfect fogs of dust are constantly raised, should be oiled, likewise any roads to be made in the rear of the buildings. An effort should also be made to have the manufacturing inter-

ests round about to abate the *noise nuisances*; steam should be blown off in underground pits and whistles should not be blown at unearthly hours of the morning or night.

Going back to the matter of flies, the *manure pits* in connection with the stables should be provided with covered tops. To have an open manure pit close to a hospital, which handles infectious diseases, simply means a vast breeding place for flies that can carry infection to other patients and to other portions of the city, and is so flagrant a violation of sanitary principles that it should not be tolerated for a moment.

We are glad to note that the Supervisors are making an attempt to *park the grounds in the rear of the place* and we commend this effort most cordially. We hope the Park Department of our city will give the necessary trees and shrubbery and that the proper walks will be laid out by the chain gang and changes made, and also a sufficient number of sanitary drinking fountains supplied. This matter is important to the well-being of the tuberculous patients especially and should be pushed vigorously.

In this connection, the suggestion has been made that a *day tuberculosis camp* might be established in this park to the rear of the tuberculosis building. If this park were laid out and put in lawn and shrubbery it would soon be very beautiful. There are now a sufficient number of shade trees and with the six tent houses formerly used, there would be adequate facilities for rest and comfort of the ambulant patients. Milk or a light lunch could be given the patients by the county or by the Tuberculosis Society, and the patients could be under the supervision of the city and Tuberculosis Society nurses if no others could be spared. Why not give these unfortunate consumptives a chance for recovery when they can still help themselves, instead of waiting until





they are all in and recovery is out of the question?

The city and county are to be congratulated on the increased *efficiency of the medical and executive staffs of the institution*. We are, however, of the opinion that the efficiency could still further be increased if there were in residence a salaried medical man who would give all of his time to the institution. Unfortunately, to get a physician of mature years and experience to assume the responsibility of superintendent at the salary now given is out of the question. On this account, it would seem best to allow the Superintendent to be a medical practitioner who gives half of each day to the hospital and who lives there, but who has the right to have afternoon office hours in order to keep in touch with his private practice.

We believe it would be a distinct advantage if in addition to such a Superintendent, there were a *Receiving Physician* on salary, say of \$150.00 per month and quarters, *who would give all his time to the Institution*. Such a Receiving Physician could be the Acting Superintendent in the absence of the Superintendent, and such a Receiving Physician would receive and assign to proper wards all patients who were admitted into the hospital and do such other work as might be delegated to him.

To manage a public hospital efficiently and to the best interests of the patients necessitates *centralized authority* in the medical director or superintendent and the subordinates under him, since only persons with medical training have that knowledge and experience which enables them to act with promptitude and efficiency in the host of executive and administrative problems which are constantly awaiting solution in such an institution.

We believe the *staff of internes* should be increased if possible, and if necessary

that we should bring internes from the East in order to have sufficient men to look after the sick patients properly. Inasmuch as the internes do not receive salaries, we are of the firm opinion that their quarters should be made pleasant, that the table provided them should be good, and that they should be provided with library facilities that are first-class in every respect. These internes deserve a library room with at least five to ten of the best medical and surgical journals, and book cases containing one or more up-to-date books on every division of medicine and surgery. These young men should be given every opportunity to make their stay in the hospital of good not only to their patients but to themselves, and the inauguration of an up-to-date library would go a long way towards this end and be a courtesy and a favor which they would greatly appreciate, and which all who are familiar with the character of the important services rendered by them will agree that they more than deserve.

The above are a few of the important problems now confronting the Los Angeles County Hospital. As per your instructions your Committee will submit additional reports from time to time, not only on this but on other public health organizations, both institutional and non-institutional.

Inasmuch as the proper care of the poor sick of Los Angeles County is a subject of very great interest not only to citizens of this county but especially to the medical profession, we recommend that an annual report be submitted to the Los Angeles County Medical Association, so that in their capacity as citizens, the members of that Association may aid the Supervisors in still further increasing the support and efficiency of the institution to the fullest possible extent.

Signed, GEORGE H. KRESS, M.D.,

O. O. WITHERBEE, M.D.,

Committee.

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## EDITORIAL

### THE RECENT SESSION OF THE STATE MEDICAL MEETING.

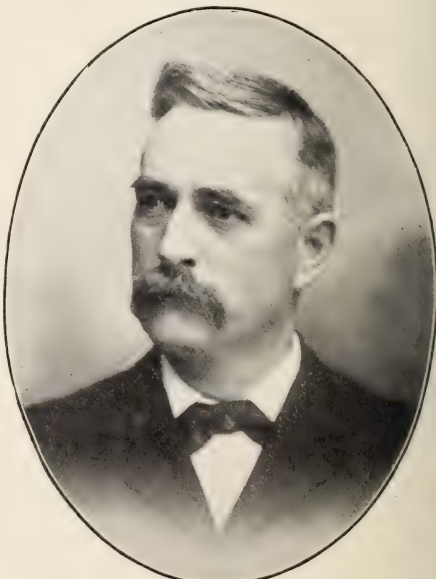
The fortieth annual meeting of the Medical Society of the State of California met at Sacramento on April 19, 20 and 21, the session being most successful as regards the scientific, the business and the social features.

The southern counties, as not infrequently happens, were without complete representation—there being three absentees in the Los Angeles County delegation, two absentees in the San Diego delegation and one each in the Orange, the Imperial and the Ventura delegations.

The scientific program was this year largely carried on by our northern colleagues, as was to be expected at a meeting as far north as Sacramento.

The reports of the officers and of the Board of Councilors showed much progress in the development of the

Society. Los Angeles was honored in the selection of Dr. H. Bert. Ellis as chairman of the Reference Committee, and he brought in a characteristic re-



DR. JOHN C. KING,  
President-Elect,  
Medical Society of the State of California.

port, brief, comprehensive and so acceptable as to be adopted without change whatsoever.

The action of the Board of Councilors in starting suit against Mr. Kaplan, who has published the State Register and Directory in the face of a written protest from the Society's officers, was fully endorsed, and at a later meeting of the Board of Councilors the Secretary was instructed to send out to every member of the Society a letter asking all members to refrain from giving information or support of any kind to the said Kaplan publications.

The amendment sent up by the Los Angeles Council, asking for a staff of corresponding editors to the State Journal, one from each county unit, was adopted.

The amendment introduced by Dr. Ellis, providing that the Committee on Scientific Program should take on a more permanent form by having only one member go off each year, was also passed.

It was also voted to give notice that in 1911 or 1912, that contract practice by members would cause such members to be dropped from the roll of membership.

The meeting of the presidents and secretaries on the evening before the session opened should be productive of real good. In addition to the many excellent opinions advanced and which will be carried back to the various county units, it is quite possible that an official bulletin of some sort, to be distributed among the executive officers of the state and county societies, may result therefrom.

Dr. George H. Kress of Los Angeles was re-elected State Councilor for the Second District, composed of Los Angeles, Santa Barbara, Ventura and Kern counties.

Dr. F. M. Pottenger of Monrovia was re-elected State Councilor at large.

Dr. Andrew Stewart Lobingier of Los Angeles was elected Chairman of the Committee on Scientific Program.

The Public Health Commission, which originated and has its working nucleus in the South, was reappointed on the same basis through the re-election thereto of Dr. Fitch Mattison of Pasadena, Chairman, Dr. Stanley P. Black of Pasadena and Dr. George H. Kress of Los Angeles.

On the evening of the second day the first order of business considered was the selection of the next place of business. Del Monte, Santa Rosa and Santa Barbara were placed in nomination, and Santa Barbara was selected. This means a meeting in the Southland next spring. From the sentiments expressed there is a strong feeling to hereafter have the northern meetings at Del Monte and the southern meetings at Santa Barbara or Coronado.

The most of the interest, however, was centered on the selection of the next president. About the middle of March last, Los Angeles County, in courtesy to its sister counties of the Southland, placed in nomination the name of Dr. John C. King of Banning, Riverside County.

The Southern counties went north in advocacy of Dr. King because in him, should he be the choice of the delegates, they felt the State Society would secure



a most worthy president. San Francisco likewise presented a candidate, an esteemed colleague of much the same character as Dr. King and, like Dr. King, loved also in both north and south.

It was difficult to choose between the two men. The South had, however, pledged itself to Dr. King and knew no reason why his name should be withdrawn other than for the purpose of avoiding a sharp contest.

Dr. Andrew Stewart Lobingier of Los Angeles in a splendid speech presented Dr. King's name to the meeting and the nomination was seconded by Dr. Rowell of Alameda. When the vote was taken, Dr. King was found to be elected and on motion of Dr. Langley Porter, president of the San Francisco County Medical Society, the election was then made unanimous.

We believe the entire State will feel that in Dr. John C. King of the Riverside County Medical Association, a most worthy colleague has been elected to the presidency, and in the South, where he is known intimately, all will feel certain that his term of office will result in credit to himself, to the South and to the profession at large.

Dr. John C. King, the president-elect of the State Medical Society, was born at Pittsburg, February 9, 1853. He received the M.D. degree from the University of Nashville in 1874 and took up his residence in Banning ten years later.

At Banning his influence both as a physician and as a citizen has been notable. For twenty years he has been

a member of the school board and a goodly time its president. He has been president of the San Bernardino County Medical Association, of the Riverside County Medical Association, of the Southern California Medical Society and has been vice-president of the Medical Society of the State of California.

His friends think of him as a modest, retiring gentleman, a physician of the old school, who in a little desert town over in Riverside County has kept up with the advances in medicine and surgery and who has let his influence, professionally and as a citizen and useful member of the community, radiate far and wide over the region which it has been his pleasure and his ambition to serve as well as gifts granted him by God and his own work and application could prepare him.

It is a pleasure to note in the election of Dr. King to the state presidency the recognition of the wideawake country practitioner, and the Medical Society of the State of California is to be congratulated on its action.

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#### ARMY MEDICAL CORPS EXAMINATIONS.

To fill the present large number of vacancies in the Medical Corps of the Army, the Surgeon-General announces that a preliminary examination of applicants for appointment to that Corps will be held at various Army posts throughout the United States on July 18, 1910, in addition to the examinations held by the permanent boards at Washington, D. C., Fort Sheridan, near Chicago, Illinois, and San Francisco, Cali-

fornia, on the second Monday of each month

It is thought a great many men who are qualified for the Corps do not take the examination because they are not clearly informed of the advantages presented in obtaining a commission. The recent increase of the Medical Corps, together with a larger Army, will permit of a great variety of medical and surgical work, such as surgery, sanitation, chemistry, pathology, microscopy bacteriology. Appointments are made with the rank of first lieutenant, pay \$2,000 per annum, and promotion is made at the end of three years, to captain at \$2,400, which, at the end of five years' service, is increased to \$2,640, etc. In addition, many other privileges are allowed, such as quarters, medical attendance and medicines, mileage, retirement, etc. These allowances are estimated to add from \$1,200 to \$1,600 to the yearly compensation in the grades of first lieutenant and captain.

Applicants must be citizens of the United States, between twenty-two and thirty years of age; graduates of reputable medical schools; of good moral character and habits; and shall have had at least a year's hospital training after graduation, or its equivalent in private practice.

Full information concerning the examination can be procured upon application to the "Surgeon-General, U. S. Army, Washington, D. C." We commend the above to the young members of the profession. There is no career more honorable or offering more opportunities than this. The Army has heretofore attracted few from California.

## SOUTHERN CALIFORNIA MEDICAL SOCIETY HOLDS FORTY-THIRD ANNUAL MEETING.

The Southern California Medical Society held its forty-third semi-annual meeting at Redlands, May 4-5, the Casa Loma Hotel being the official headquarters.

Prior to the first session of the Medical Society of the Southern California Public Health Association, Dr. W. W. Roblee of Riverside, President, and Dr. J. I. Clark of Santa Ana, Secretary, held a meeting at which the pure food law was discussed by Professor M. Jaffa, of the University of California. Dr. Stanley P. Black, of the Los Angeles Department of the same institution, gave a talk on certified milk.

The medical program opened with a symposium on rabies, Dr. H. G. Brainerd, Stanley P. Black and L. M. Powers being the essayists.

The Eye, Ear, Nose and Throat section gave a very complete series of papers, and the remainder of the program was largely given over to surgical and X-ray topics.

The attendance was good, the social features were well carried out and the meeting was up to that standard for which the Southern California Medical Society is so well known.

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## THE MOST SUCCESSFUL CAMP.

From the fact that no mosquitoes were present and seldom a fly visible, with no case of sickness that could be attributed to infection or contagion, it must be said that Camp Ayascadero for 1908 was the most successful camp ever held in California.

## EDITORIAL NOTES

Dr. Gilbert V. Hamilton of Montecito has returned from the East.

Dr. W. L. Bartow has offices at 314 West 4th street, Los Angeles.

Dr. Sherwin Gibbons of Los Angeles is being mentioned for coroner.

Dr. and Mrs. C. C. Browning of Monrovia are now traveling abroad.

Dr. Leon J. Roth is now located in suite 603, Pacific Electric Building, Los Angeles.

Dr. Jane Rogers Baker says she will soon build an elegant sanatorium in Pasadena.

Dr. J. C. Goodell of Covina, who has been traveling for several months, is again at home.

Dr. C. G. Toland of Pomona is spending a year with the Mayo Brothers in Rochester, Minnesota.

Dr. E. E. Kelly, formerly of San Francisco, has located in Pomona, succeeding Dr. Toland.

Dr. Adolf Kraemer of San Diego has returned from a three months' visit to Geneva, Paris and London.

Dr. C. C. Logan now has his offices in suite 600, Grant Building, Los Angeles. Eye, ear, nose and throat.

Dr. C. Holmes Criley is now located in suite 404, Auditorium Building, 5th and Olive streets, Los Angeles.

Dr. E. J. Moffatt, a prominent surgeon of Manhattan, Kansas, has been spending a few weeks in California.

Dr. Thraikill has located in Lancaster, California, with offices over the bakery. He will doubtless take the cake.

Dr. G. W. Lasher, the Los Angeles surgeon, is now riding in a Moline motor car. He says as a boy in Illinois he found the Moline plow was all right, so he decided to stay by the Moline.

Dr. J. J. Choate of Los Angeles has been suffering from some broken ribs as the result of an automobile accident.

Dr. and Mrs. Oscar J. Kendall of San Diego had a delightful celebration of the 14th anniversary of their wedding.

Dr. W. S. Johnson has removed his offices to suite 303, Walter P. Story Building, 6th and Broadway, Los Angeles.

Dr. M. Morgan Cloud of Los Angeles recently traveled 10,000 miles and examined 2,000 trainmen on the Santa Fe Coast lines.

Dr. H. W. Fenner of Tucson and Dr. Vance Clymer of Yuma protected the reputation of Arizona in Los Angeles during the early days of May.

Mayor Alexander has added credit to his administration by appointing Dr. Geo. L. Cole as a member of the Los Angeles Board of Health. Dr. Cole has shown the true civic spirit in accepting this appointment.

From Dr. J. Wesley Bovee, Washington, D. C., we have received the following reprints: (1) Bilateral Polycystic Degeneration of the Kidneys. (2) The Existing Relation Between the General Practitioner and the Specialist. (3) Suppurative Phlegmonous Gastritis.

The *New England Medical Monthly* has been purchased by the Annals Publishing Co. of Boston and will be combined with the *Annals of Medical Practice*. Dr. Francis D. Donoghue, formerly editor of the *Annals of Medical Practice*, will continue in charge of the consolidated journals.

Dr. Joseph G. Bailey, a pioneer physician of Santa Ana, died suddenly from heart disease on the steps of his office on the evening of April 29th. He graduated from the University of Toronto, but was a native of England. He had



practiced medicine in Santa Ana thirty-three years. At the time of his death he was President of the Society for the Prevention of Cruelty to Animals.

The following graduated Thursday evening, May 5th, from the Pasadena Hospital: Misses Edith Sibyl Bryan, Bessie Lee McFann, Claire Elizabeth St. Clair, Elizabeth L. Macdonald, Alice Sargent, Marietta Rowena Buffington, Mary Elizabeth Nelson, Alice McCalla, Amelia Waterstreet, Edna Starhorn Halliwell and Maud M. Devereaux. Dr. Charles D. Lockwood delivered the address of the occasion.

All physicians and their families are cordially invited to attend the graduating exercises of the Training School for Nurses of the California Hospital at the Gamut Club House, 1044 South Hope street, 8 p.m., Thursday, May 26. Instead of the usual address by clergy man, lawyer or doctor, there will be a stereopticon address on "The Fjords and Fjelds of Norway" by Prof. Baumgardt, who considers this the most interesting of his addresses.

The following were recently elected members of the Los Angeles County Medical Association: B. G. Pinkerton, M.D., Washington University, Los Angeles; C. Holmes Criley, M.D., Univ. of Pa., 1907, Los Angeles; Ernest L. Battelle, M.D., Chicago Hom. College, 1886, Los Angeles; P. G. White, M.D., McGill University, 1905, Los Angeles; G. A. Broughton, M.D., Univ. of Cal., 1896, Los Angeles; William Duffield, M.D., Univ. of Pa., 1893, Los Angeles; A. J. Scott, Jr., M.D., Univ. of So. Cal., 1909, Los Angeles; C. L. Caven, M.D., Univ. of So. Cal., 1896, Los Angeles.

*When the judgment day arrives, and  
The doctors answer for their sins;  
Think of the punishment he'll receive  
Who brought the howling triplets and  
the twins!*

The above graced the menu card of the dinner given by the Delta Chapter

of the Rhi Rho Sigma fraternity at the Angelus Hotel on the evening of April 28th. This is the Southern California University Greek letter fraternity where medical students and doctors fraternize. About seventy-five were present. Dr. William R. Moloney was president of the evening, and Dr. O. O. Witherbee was the toastmaster. Dr. Rexwald Brown, Dr. J. R. French, Dr. George H. Kress, Dr. J. Lee Hagadorn and Dr. Milbank Johnson were the after-dinner speakers. Three physicians, Sylvester Gwaltney, A. F. Wagner and Louis Weber were initiated into associate membership. Officers elected for the following years are: President, Dr. Milbank Johnson; vice-president, Dr. A. S. Lobinger; second vice-president, Dr. Rexwald Brown; secretary-treasurer, Dr. W. R. Maloney; trustees, Dr. W. Jarvis Barlow, Dr. William Mayne, Dr. Harvey McNeil, Dr. W. W. Beckett, Dr. Albert Soiland.

Dr. Edward C. Register of Charlotte, North Carolina, in a recent address on "Diet in Typhoid Fever," says: "We have no ideal food for the typhoid patient, neither have we any one food that will suit every case, or that is the best in every case; consequently we have to select the food that seems to be most proper for the individual. Speaking generally, I am of the opinion that milk, in some of its forms, is the best diet. In fully 85% of all the cases of typhoid fever that I have ever treated, milk seemed to be the best diet. For the last few years, it has become a habit of mine in many cases to substitute sour milk or buttermilk for sweet milk. In the majority of cases I find that it is more palatable, and many of my typhoid patients prefer it. Buttermilk as an article of food in typhoid is not a new thing; its value has been known almost since the beginning of medical history, but it is only recently that we have fully learned to appreciate it as a

food for fever patients. There is hardly any substance that has as great a tendency to check putrefaction as has sour milk, and at the same time is so easy to digest, and gives us a food of con-

siderable nutritive value. I have observed evidences of bacterial putrefaction in patients, to whom sweet milk was properly given, subside when the buttermilk diet was adopted."

## OF GENERAL INTEREST

### ARIZONA MEDICAL ASSOCIATION.

Members registered at Nineteenth Annual Session, April 20-21, 1910:

Cochise County—John E. Bacon, F. E. Shine, C. S. Powell.

Gila County—John H. Lacy, R. D. Kennedy.

Graham County—J. N. Stratton.

Maricopa County—Willard Smith, W. C. Ellis, W. Warner Watkins, W. M. Brack, John W. Foss, W. I. Simpson, H. A. Hughes, E. C. Bond, G. S. Monical, John W. Thomas, L. D. Dameron, R. F. Palmer, W. H. Sargent, C. M. Cron, B. B. Moeur, Francis Redewill, Louis Dysart, Wm. Marrian, H. K. Beauchamp, E. S. Godfrey, Jr., N. D. Brayton, O. E. Plath, H. H. Stone, G. S. Reed, R. W. Craig, J. A. Ketcherside, Roy E. Thomas, Ralph F. Alexander, Geo. C. Rubel, J. E. Drane.

Yavapai County—R. N. Looney, J. K. McDonnell, Cap. C. L. Cole, C. E. Yount, W. I. Linn, M. G. Marden, H. T. Southworth, John W. Flinn.

Yuma County—Thos. R. Whitmarsh, E. B. Ketcherside, Henri Apjohn.

Pima County—Geo. D. Troutman, Wm. V. Whitmore, I. E. Huffman, John Dennett, Jr., A. Morrison.

Invited Guests—J. Wilson Shiels, San Francisco; W. W. Beckett, Los Angeles; Paul Burks, Esq., Prescott.

### SKUNKS TRANSMITTERS OF RABIES.

*The Medical Record*, April 23, 1910, in an extended editorial on Dr. Yount's paper, says:

"Dr. John C. Janeway, assistant surgeon U. S. A., published, in the *Med-*

*ical Record*, March, 1875, a paper in which he reported ten fatal cases of rabies from skunk-bite, on the then Kansas frontier. Since that time several cases of rabies from skunk bites have been recorded in Arizona. C. E. Yount of Prescott, Ariz., read before the eighteenth annual session of the Arizona Medical Association, May 20, 1909, a paper on the subject, which was published in the *SOUTHERN CALIFORNIA PRACTITIONER*, March, 1910. In this paper it is shown that from May, 1907, to May, 1909, eighteen individuals were bitten by skunks, of which number five developed rabies and died. All the cases but one were treated. One was treated by permanganate injection, three had no Pasteur treatment, while twelve were treated by the Pasteur method. Of those who died, one was not treated, three had no Pasteur treatment, while one had Pasteur treatment. The skunks attacked the persons bitten, generally when sleeping in tents or in the open, and the writer is inclined to regard this fact, taking into consideration the usually timid habits of the animals, as *a priori* evidence of rabies and as an indication for Pasteur treatment."

### SMALLPOX.

Dr. John W. Trask, of the United States Public Health and Marine Hospital Service, in the course of a valuable paper on "Smallpox in the United States," says:

"Smallpox is undoubtedly more prevalent in the United States than it should be. Just how many cases are occurring it is impossible to say, owing to the inaccessibility or absence of records. It

remains to be seen whether the conditions which have existed for a decade and still exist are accidental and constitute an unusual prevalence of the disease due to unknown natural causes which will disappear in time, causing the disease to subside.

"If there were 35,174 cases in the United States in 1908, or even presuming that the number was twice this or over 70,000, which is undoubtedly more nearly correct and possibly still too low a figure, and presuming that only one-tenth of the people in the United States are unprotected by vaccination, a figure also undoubtedly too low, then the unprotected 8,000,000 or 9,000,000 could annually supply 70,000 victims indefinitely, so that we can hardly assume that the disease will necessarily exhaust itself, and even if it does there would seem to be nothing to prevent its constant reappearance.

"The prevention of smallpox constitutes a public health problem generally believed to be fundamental if not elemental in character. So great a number of cases of what is believed to be one of the most easily prevented diseases in an enlightened community must necessarily put sanitarians and public health officials on their mettle.

"All are familiar with how smallpox has been stamped out of the German

army by systematic vaccination. There may be those who will say that it is much easier to eradicate this disease from an army where there is perfect control over all individuals than it is to accomplish the same result among civilians. This of course is to some extent true, but in this connection it is worthy of note that some of our own states have practically eradicated smallpox from within their borders, and that the few cases which occur receive their infection from other states. What has been done in the Philippines is also of interest. The Director of Health of the Philippines in his annual report for the fiscal year 1907, states 'During the year there has been unquestionably less smallpox in the Philippines than has been the case for a great many years previous. Where heretofore there have been more than 6,000 deaths annually from this one cause alone, it is most satisfactory to report that since the completion of the vaccination in the aforesaid provinces, more than a year ago, not a single death from smallpox has been reported. So thoroughly are the Philippines saturated with the contagion of smallpox that probably 25 per cent of the residents would soon succumb to this disease if it were not for the ability to protect the inhabitants against it by vaccination.'

## BOOK REVIEWS

CLINICAL EXAMINATION OF THE URINE AND URINARY DIAGNOSIS. Third Edition. Revised and Enlarged. Clinical Examination of the Urine and Urinary Diagnosis. By J. Bergen Ogden, M.D., Medical Chemist to the Metropolitan Life Insurance Company, New York. Third Edition, revised. Octavo of 427 pages, illustrated. Philadelphia and London, W. B. Saunders Company, 1909. Cloth, \$3.00 net.

This excellent work maintains its position as an authority. In speaking of acetone the author raises a question as to its significance. "The principal

source of acetone is the decomposition of the proteids of the body as well as those taken as food. Some writers believe, on the contrary, that it is the decomposition of the fats, and not the proteids, which constitute the chief source of acetone." The reason so much acetone is found in the urine of the diabetic is because starches and sugar have been eliminated and such a large proportion of nitrogenous food has



been ingested. He says the quantity of urea excreted in a healthy man may vary from 25 to 40 grains, but that it is less in woman. The proportion of uric acid to urea is normally about as 1:45. Hippuric acid is abundant in the urine of herbivora and absent in the urine of carnivora. In man the 24 hour specimen of urine contains from 0.1 to 1 gram. The chapter on examination of urine for life insurance is very practical.

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**THERAPEUTICS. MATERIA MEDICA AND PHARMACY**, including the special Therapeutics of Diseases and Symptoms, the Physiological and Therapeutical Actions of Drugs, the Modern *Materia Medica*, Official and Practical Pharmacy, Minute Directions for prescription writing, also the Antidotal and Antagonistic Treatment of Poisoning; by Samuel O. L. Potter, A.M., M.D., M.R.C.P. London. Formerly professor of the Principles and Practice of Medicine in the Cooper Medical College of San Francisco; Author of the "Quiz-Compend of Anatomy and *Materia Medica*," "An Index of Comparative Therapeutics," several articles in Foster's "Practical Therapeutics" and "Speech and its Defects"; Late Major and Surgeon of Volunteers, U. S. Army. Eleventh edition. Revised and enlarged. Philadelphia. P. Blakiston's Son & Co., 1012 Walnut St., 1909.

Potter's work comes to us in the eleventh edition.

This book, which has been before the profession for over twenty years, and has run through ten editions previous to the present one, has always been a favorite with both the profession and the student classes.

"The original intention of the author was to produce a book which would embrace in a single volume the essentials of *Materia Medica* and Therapeutics, treating of each subject in as concise phraseology as possible consistent with the delineation of every important feature."

While it is essentially a compilation, there is much original matter in the book which is derived from the writer's own experience in professional life.

The physiological action of the drug is taken up, its characteristic features being described, then the actions result-

ing from the ordinary medicinal doses, next the results produced by small doses continued, and finally the results from the toxic doses.

As therapeutics takes up three-fifths of the book, the title has been slightly changed to correspond with the prominence given to that subject.

In going over the work carefully there will be found some few incongruities, as for example under the head of "*Oelum Ricini*" in one paragraph appears this statement, "It is employed with great benefit as a laxative in irritation or inflammation of the bowels, in *hemorrhoids*, inflammatory or spasmodic affections of the genito-urinary organs," etc., etc., while in the next paragraph it is stated, "There is considerable evidence in support of the charge that it induces hemorrhoids by congesting the rectal vessels."

However, on the whole it is one of the most useful books before the profession today, as is testified to by the fact that it is known with great favor among teachers, students and practitioners. It is a volume of nearly 1000 pages, with a large portion in very fine type.

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**INTERNATIONAL CLINICS A QUARTERLY OF Illustrated Lectures and especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynaecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners by leading members of the medical profession throughout the world, edited by Henry W. Cattell, A.M., M.D., Philadelphia, U. S. A., with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; A. McPhedran, M.D., Toronto; Frank Billings, M.D., Chicago; Chas. H. Mayo, M.D., Rochester; Thos. H. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Richard Kretz, M.D., Vienna, with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels, and Carlsbad. Volume I. Twentieth Series, 1910. Philadelphia and London. J. B. Lippincott Company, 1910.**

Volume one of the twentieth series of the International Clinics is of un-

usual interest. A volume that contains articles by such men as Musser, Halstead, Bloodgood, Hideyo, Noguchi and Sachs needs no further commendation by the reviewer.

Bloodgood's article on "Surgery," in which he takes up successively post-operative complications, anesthesia, infections, vaccines, tendon transplantation, surgery of the stomach, surgery of the large intestines, surgery of the gall-bladder. Under the head of Gall-stones without symptoms, he quotes Monynihan as of the opinion that these cases *do* have symptoms, but the profession needs further education on the early symptoms of gall-stones. Under Carcinoma he says, "the question is often asked him whether it is dangerous to excise a piece for diagnosis, and then a few days later perform the operation." His reply is "there may be, and there undoubtedly are, exceptions to the rule, but my experience has taught me that in some malignant tumors, practically all carcinomas, it is dangerous to cut into the tumor through healthy tissue, excise a piece, close the wound and then later perform the indicated operation. If possible the operation should be performed at once. The diagnosis can and should be made from the gross appearance at the exploratory incision, or from a rapid frozen section. It seems to me that if physicians fulfill the requirements of bringing patients to surgery at a much earlier period in the life of the tumor, they can fairly demand of the surgeon an immediate diagnosis."

A very interesting article by Dudley Fulton, of Los Angeles, is on "Chronic Mucous Colitis." It is a résumé of one hundred and fifty-eight cases of the disease. Out of the one hundred and fifty-eight cases, he reports fifty-eight per cent. as cured, twenty-eight per cent. as greatly benefited, fourteen per cent. not benefited at all or soon relapsed after the cessation of treatment, and twenty-eight out of the one hundred and fifty-

eight having been lost sight of. To those of us who know the thoroughness and conscientiousness of Dr. Fulton's work, this is an especially interesting article.

This volume has seemed to the reviewer more completely to fulfill the high place in medicine destined for the work than any volume that has been issued within the past year.

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THE CONQUEST OF DISEASE THROUGH ANIMAL EXPERIMENTATION. By James Peter Warbasse, M.D., Author of Medical Sociology. Cloth, 175 pages. New York and London: D. Appleton & Co., 1910.

The author dedicates this book "to the laborers in the fields of biologic sciences, who wrest from nature her secrets, to the end that life shall be more sweet, that pain shall be relieved, that childhood, youth and age shall be absolved from the hazards of disease, that death shall be postponed and that the light of truth shall fall upon the dark places." It tells a story of patient endeavor that stirs one's blood.

Some of the chapters deal with the study of living animals; what is meant by animal experimentation; the meaning of pain; what is cruelty to animals; animal experimentation and physiology, etc.

This little volume is an excellent presentation and defense of animal experimentation and is worthy of the widest circulation. Would that its truths could be taken to heart by ignorant, misguided and sentimental anti-vivisectionists.

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SPONDYLOTHERAPY. By Albert Abrams, A.M., M.D., San Francisco, Cal. Cloth, 420 pages, 100 illustrations; price \$3.50. The Philopolis Press, Suite 406, Lincoln Building, San Francisco, Cal.

The work is divided into eleven chapters: Chapter I, historical; Chapter II, anatomic, topographic and physiologic data; Chapter III, symptomatology; Chapter IV, summary of spinal diseases and symptoms; Chapter V, general

spondylotherapy; Chapter VI, pseudo-visceral diseases; Chapter VII, the circulatory system; Chapter VIII, the respiratory system; Chapter IX, the digestive system; Chapter X, miscellaneous reflexes; Chapter XI, the therapeutics and diagnosis of pain.

The vogue of osteopathy, chiropractic and other more or less rational systems of mechanical therapeutics has led the author to search for the reason back of these systems without which they quickly would have been relegated to the graveyard of fads. His search has established the influence of reflexes, cutaneous, deep and spinal, upon the physiological functions of various internal organs. These reflexes are elicited by chemical, electrical or mechanical agents, and some by stimulation, others by inhibition of physiological functions may be called into play as therapeutic measures.

The author outlines his system of therapy on page 146: "Thus our therapy by peripheral methods resolves itself into the following: either an abnormal reflex is inhibited or it may be antagonized by a counter-reflex. In a word, peripheral stimulation signifies irritation of centrifugal or centripetal nerves. In arousing the former to activity we stimulate motor, secretory, trophic, inhibitory and thermic nerves, whereas stimulation of the centripetal nerves predicates an action on the reflex-motor, reflex-secretory and reflex-inhibitory nerves."

"Visceral reflexes may be evoked not only by cutaneous irritation but by concussion and the application of the sinusoidal current to the spinous processes of the vertebrae. In the therapeutic elicitation of the vertebral reflexes the only kind of vibratory apparatus which is effective is one giving the *percussion stroke*. All other motions, as oscillations, shaking and friction, interfere with the results. In other words, it is

concussion and not vibration which is effective."

Our knowledge of localization of function in different segments of the spinal cord would lead us to exactness in ordering any spinal application, but how often do we direct the nurse to "rub the patient's back well." On page 146 the author states "That the manipulation of definite vertebrae corresponds with the elicitation of definite reflexes, but if the vertebrae are promiscuously handled, counter reflexes are evoked, which often accentuate the reflexes in action and thus intensify co-existing symptoms."

This is a hard book to read, but perusal of its pages will give us a much clearer understanding of spondylotherapy.

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A SYNOPSIS OF SURGERY. By Ernest W. Hey Groves, M.S., M.D., B.Sc. (London), F.R.C.S. (England); Assistant Surgeon to the Bristol General Hospital; Surgeon to the Casham Hospital; Senior Demonstrator of Anatomy at the Bristol University. Second Edition, Revised and Illustrated. New York, William Wood & Co. MDCCCX. Price \$3.25.

Here we have an epitome of the salient facts in surgical practice. This synopsis will prove a valuable aid to the student in retaining in his memory a vast array of facts in an orderly manner. This work will also be of use to the busy practitioner, owing to its concise and methodical arrangement, by presenting the diagnosis and treatment of surgical conditions in a terse and comprehensive manner.

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A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By James M. Anders, M.D., Ph.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, Medico-Chirurgical College, Philadelphia. Ninth Revised Edition. Octavo of 1326 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1909. Cloth, \$5.50 net; half Morocco, \$7 net. For sale by Fowler Brothers, 543 South Broadway, Los Angeles.

Anders brought off the first edition of this work in 1898, and the ninth edi-



tion shows evidence of most careful revision. The diagnostic tables which helped make the book so popular when it first appeared are still a valuable part thereof. Much attention has been paid to treatment and particular stress has been laid on prophylaxis.

The section on tropical diseases has been enlarged and much that is new has been introduced. Here and there,

some of the newer methods might have been covered in more detail, as, for instance, the Moro and Pirquet tests in tuberculosis, but on the whole, the presentation of the subject-matter is very well balanced.

This volume has always been popular with students and practitioners, and the ninth gives every promise of retaining the reputation of the earlier editions.

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## MISCELLANEOUS—THERAPEUTICAL HINTS

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**TYPHOID FEVER.**—In the treatment of this disease it is necessary to control the patient's temperature and to keep the alimentary canal in as nearly aseptic condition as possible. The effort of the physician must, however, be directed toward preventing intestinal perforation. No other remedy will accomplish this so readily or more satisfactorily than Daniel's Conct. Tr. Passiflora. The experience of the medical profession justifies the confidence it has so often expressed. In the whole intestinal tract this remedy acts as a sedative and hypnotic. It does not lessen the supply of blood to any organ, but gives natural and consistent nerve rest. Daniel's Passiflora does not impair the action of the heart or produce constipation, but as a mild laxative and diuretic acts pleasantly as an eliminant and nerveine.

Daniel's Conct. Passiflora Incaranata not only relieve "after pains" speedily, but acts also as a mild laxative and diuretic, and is therefore an ideal remedy in this condition. When once a physician has given this remedy a thorough trial he will never revert again to morphine, camphor or any of the old-time injurious drugs.

Signed WM. A. DONOVAN.

May, 1910.

A debilitated condition of the reproductive system is invariably associated with a suppressed or scanty menstrual flow, and by reason of this fact, the prompt administration of a utero-ovarian stimulant is obviously of more immediate benefit than the employment of measures directed toward improving the nutrition and general health of the patient.

When the menstrual discharge has been acutely suppressed or rendered scanty by exposure to cold, change of climate, worry or grief, the administration of a potent utero-ovarian stimulant is incomparably more beneficial than drugs that only affect the reproductive system indirectly.

The invigorating action of Ergoapiol (Smith) on the uterus and its appendages renders it of extraordinary service in cases of suppressed or scanty menstrual flow. The stimulating action of the preparation on the sexual apparatus is exceptionally marked and prompt, and in instances where debility of these organs is the underlying cause of suppressed or scanty menstrual discharge, its employment is invariably advantageous.

In the amenorrhea of "shop-girls" debilitated by over-work and insufficient exercise, Ergoapiol (Smith) has proved particularly beneficial. It is likewise

notably serviceable in scanty menstruation of women who have borne children in rapid succession.

In cases of acute suppression arising from sudden exposure to cold or dampness, change of climate, shock or similar causes, the preparation should be administered in doses of one capsule three or four times a day until the function has been re-established.

When the amenorrhea is of long standing and due to general debility, anemia, sexual depression or other systemic impairments, one capsule should be administered night and morning throughout the intermenstrual period.

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An agent of undoubted value in dysmenorrhea and ovarian hyperaesthesia is *Liquor Sedans*, a preparation introduced to the medical profession many years ago by Messrs. Parke, Davis & Co., and esteemed and prescribed by physicians to an extent, it is believed, not equaled by any similar compound.

*Liquor Sedans* is composed of three of the most important sedatives, anodynes and tonics to the female reproductive tract—namely, black haw, hydrastis and Jamaica dogwood—so combined with aromatics as to constitute a very acceptable preparation, being in this respect unlike some other agents of a similar nature which are ordinarily taken with great reluctance. It is of marked usefulness in the treatment of functional dysmenorrhea, menorrhagia, ovarian irritability, menstrual irregularity, etc. Parke, Davis & Co. also manufacture *Liquor Sedans Rx 2* (without sugar), which is precisely like the older formula but for the omission noted, and which is available for use in cases in which sugar is contraindicated; also *Liquor Sedans with Cascara*, which is of the same composition as *Liquor Sedans* except that each fluid ounce contains 40 minims of the fluid extract of cascara sagrada, giving to the formula an important tonic-laxative value.

#### TABLOGESTIN.

In the treatment of intestinal dyspepsia, intestinal auto-intoxication, hepatic insufficiency and allied affections, as well as in the therapy of medical affections of the liver and bile tract, *Chologestin* has attained a well merited reputation. The formula is sensible and logical and the preparation has distinctly "made good" in its special field. Until the present time the remedy has been obtainable in liquid form only, but, by reference to the advertisement of the manufacturers in this issue, it will be noted that *Chologestin* is now marketed in tablet form. In order to prevent confusion between liquid and tablet, the name *Tablogestin* has been adopted to designate the latter. Three (3) tablets contain the active medicinal ingredients of one tablespoonful *Chologestin*, the regular adult dose, to be taken after each meal.

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It is of course well understood that the general anemia and devitalization dependent upon and caused by any of the constitutional diatheses or dyscrasias cannot be successfully combated by hematics and tonics alone. In specific, rheumatic, tuberculous, malignant or paludal infections, the primal cause must be attacked with all the weapons of modern medical warfare that are likely to be of service, either antidotal or nutritional. At the same time, it is quite certain that a perfectly bland, non-irritant and readily tolerable hemic restorative, such as *Pepto-Mangan* (Gude) is needed. This palatable preparation of iron and manganese, in the form of organic peptonates, can almost always be given with distinct advantage to appetite, digestion, nutrition and general "well-being," while causative therapy is under way.

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*Antikamnia* Tablets are not incompatible with alkalies and potassium iodide in the treatment of rheumatism.

The extract of cod liver oil used in the preparation of Hagee's Cordial of the Extract of Cod Liver Oil Compound is made under such conditions that the medicinally active principles of the oil are separated from the fatty materials without in the least changing their state of combination or solubility, so that even the most complex specific lecithine of cod liver oil is contained as such in the extract and transferred unchanged to the cordial.

Clinical experience with Hagee's Cordial (an experience which has now extended over many years throughout the United States) justifies the assertion that its therapeutic indications are precisely those which belong to cod liver oil in its natural condition.

Battle & Co., of St. Louis, have just issued No. 12 of their series of charts on Dislocations. This series forms a most valuable and interesting addition to any physician's library. They will be sent free of charge on application, and back numbers will also be supplied. If you have missed any of these numbers, better write Battle & Co. for them before the supply is exhausted.

Many doctors prescribe a combination of Dioviurnia and Neurosine (equal parts) to abate the pain and nervousness of dysmenorrhea, Dioviurnia acting as a reconstructor to the parts affected and Neurosine allaying the pain, resuscitating and toning the nervous system. Physicians can prescribe Dioviurnia and Neurosine with impunity, as these products contain no opium, morphine, chloral or other deleterious drugs.

In obstruction of the bile duct due to duodenitis chronica is specially indicated. Cactina Pillets are used successfully in combination with nitro-glycerin in treating cardiac asthma. That delightful laxative Prunoids gives nature a chance.

## Where a Daily Catheterism

is necessary, one thing is essential, viz: that the instrument employed, and the mode of using it, should be those which effect the object with the minimum of trouble and irritation.

—SIR HENRY THOMPSON, *Diseases of the Urinary Organs* (1879), p. 101.

## K-Y Lubricating Jelly

reduces to a minimum the trouble and irritation commonly attending a daily catheterism (1) by smoothing the passage of the catheter and (2) by its emollient and soothing action within the urethra.

In collapsible tubes. Sample on request.

**VAN HORN & SAWTELL**  
NEW YORK and LONDON, ENG.

The Ray Chemical Company of Detroit, Michigan, has established a Pacific Coast branch in Sacramento. "Westward the course of empire takes its way" is a sentiment that is impressing itself on the manufacturers of the East.

Chromium Sulphate (Abbott) is recommended in prostatic trouble, chronic nephritis and chronic sciatica. The Abbott Alkaloidal Company will send 2-500's, 4-grain tablets coated or uncoated, for one dollar.

**WANTED:** Regular physician to act as assistant for a few months in general practice. Must be capable of doing some microscopical work. State age, experience, qualifications and salary expected. Drs. Johnston & Wickett, Anaheim, California.



## THE NEURONS.

Innumerable links in a system vast  
 Of bright and shining chains,  
 Whose form and shape were molded  
 and cast  
 By God with infinite pains.

Here thought wings her flight from  
 link to link,  
 As the lightning through the cloud;  
 And consciousness begins to think,  
 And utter its thoughts aloud.

A link is a cell of wondrous shape,  
 A body of marvellous strength,  
 Where energies stored, again may partake,  
 In the drama of life at length.

A dendrite issuing from each pole,  
 With its fingers multiple,  
 Gathers the news at his neighbor's toll,  
 And as quick its messages tell.

With an axone passing from the cell,  
 Whose collaterals ramify,  
 And an arborization terminal,  
 Conveys impulses by.

And this bright link in life's firm chain,  
 Is a Neuron wonderful;  
 Here pleasure romps, here writhes our pain—  
 'Tis our cup of blessings full.

Divinity alone could build  
 A temple all so rare;  
 No architect, however skilled,  
 Could hang such lights with care.

Amazing wonder stands in awe,  
 In the presence of life within;  
 And thought is stunned by the light  
 and law,  
 Of its Builder and Sovereign.

Our Neurons form this life's great seat,  
 Or they govern the life so well,  
 Possessing powers so ample and meet,  
 'Tis worthy then it should dwell.  
 —*Dr. J. A. De M. Thayer.*

## BEWARE OF THE FLY.

He breeds during the warm months  
 of the year in the filth of the barnyard,  
 in the manure of the stable, in the excrement of the privy, in the decaying garbage at the kitchen door.

He feeds on the filth from all these places, on the spit of the consumptive, on the festering wounds of men and beasts, on the bodies of dead animals.

He carries the filth from everything he touches, and may be covered with millions of death-producing germs. He may carry the dread germs of typhoid fever or the germs of consumption.

He flies from the privy to the fresh milk on the cellar floor, from the barnyard to the clean dishes of vegetables on the dining-table, from the spit of the consumptive to the nipple of the baby's bottle, from the garbage can to the lips of the sleeping child, from the dead body to the fresh fruit.

## KEEP OUT THE FLY.

Screen your doors and windows.

See that no flies enter or leave the privy.

Cover the dishes and keep them covered.

Store the manure where flies cannot reach it, and remove it frequently.

Put your garbage into cans and keep the cans tightly closed.

Prevent the flies from breeding by allowing no filth or dirt to accumulate around the house, the stable, the barn or the yard.

Pour kerosene oil into the drains and kill the eggs of the fly.

WHERE THERE IS NO DIRT OR FILTH  
 THERE WILL BE NO FLIES.

BEWARE OF THE FLY!

—*Medical Review of Reviews.*

A little boy who had just started to school had a primer of which he was very proud, for it had several illustrations in it, done in colors. The ones he thought the most of were pictures

# HY- DRO- LEINE

AN EMULSION  
OF COD-LIVER OIL  
OF PROVED  
RELIABILITY

A Sample of  
Hydroleine  
with literature  
will be sent gra-  
tis, on request.

Pure, fresh cod-liver oil—  
thoroughly emulsified, unusually  
palatable, extremely digestible and  
devoid of medicinal admixtures.

Sold by druggists

THE CHARLES N. CRITTENTON CO.  
115 FULTON ST., NEW YORK

showing the lining of the stomach. The first one was pink, showing the healthy tissues, and the second, very bright red, representing the inflamed condition produced by alcohol. This he thought the prettiest thing he had ever seen. During the summer his mother took him on a trip by rail where they took a sleeping car. The little boy awoke very early in the morning, and, looking out of the window, saw the eastern sky getting rosy from the rising sun. He grabbed his mother, awaking her, and cried: "Mother, mother, just look at the sky; it is beautiful, mother—most as beautiful as a drunkard's stomach."—*The Bur.*

It is stated that tar water will destroy the odor of iodoform.

## NEURALGIA AND NEURITIS.

Neuralgia is differentiated from neuritis by the fact that in the latter pressure upon the nerve increases the pain. The pain of neuritis is more constant, and there are peripheral disturbances in the structures supplied by the affected nerve.—*American Journal of Surgery.*

To the Trade: We take pleasure in announcing that we have arranged with Merck & Co., New York, Rahway, N. J., and St. Louis, to act as sole selling agents and distributors in the United States of our well-known anaesthetic, Kelene (pure Chloride of Ethyl), and we respectfully request that from this date orders for Kelene be sent to them at any of the above mentioned addresses.

Indiscriminate and extensive removal of the turbinates is an inadvised procedure, in view of the important functions of these bodies. Gradual reduction by cauterization usually produces sufficient contraction to permit of free nasal breathing.—*International Journal of Surgery*.

The importance of the preservation of the deciduous teeth cannot be too greatly urged. If decay occurs have the teeth treated by a competent dentist, and if the teeth are lost the space they

occupied should be maintained, so that the permanent teeth may meet the natural conditions when erupting.

#### GOOD FOR ENGLISH.

"The profession of the State is to be congratulated on the continuance of Dr. David C. English in the position of editor in the *State Society Journal*. His work has been forceful and convincing, and is rapidly becoming a power in the direction of medical thought and sentiment; not alone in this State, but wherever the *Journal* goes."

## CALIFORNIA HOSPITAL ALUMNAE NOTES

Miss Sterritt, one of our California Hospital graduates, is in charge of a hospital in Honolulu, in connection with the Girls' Industrial School.

Miss Alice M. Dougherty, '09, is taking a post-graduate course in Flower Hospital, New York.

Miss G. Hammond has gone to Boston with a patient.

Miss Bertha Peterson is doing private nursing.

The California Hospital Nurses' Alumnae Association held a delightfully pleasant and instructive meeting at the Directory rooms Monday afternoon, April 25. The Association was well represented, but there were not as many as should be present, judging from the roll call. Next month everybody must bring somebody else and make the best meeting of the year. The graduating exercises this year are to be held Thursday evening, May 26th, at Gamut Club Hall. You are all invited. Instead of the usual address by a clergyman or lawyer there will be a stereopticon lecture by Prof. Baumgardt.

Miss Waller, Superintendent of the Bard Hospital, Ventura, was greeting fellow-alumnae in Los Angeles the last

week in April. The California Hospital Alumnae Association sent Miss Eva Johnson and Miss Alice M. Dougherty as delegates to the Nurses' Associated Alumnae that holds its annual meeting in New York City, May 18, 19 and 20. These two delegates are already in New York.

Miss Gertrude Hart, who has been Night Superintendent at the California Hospital, found the constant night duty did not agree with her health. She has therefore resumed her former position of head nurse of the Maternity Department.

The nurses in the Maternity Department of the California Hospital are very proud of two cases recently, both Caesarean Sections. This historic operation was performed twice inside of a week and both mothers and both babies got along fine and left the hospital in excellent condition.

For a few weeks lately a pound and a half baby in the incubator has created great interest. It gained steadily in weight and is now in good health and at home with its mother.

Miss Gertrude MacIntosh, class 1909, has been appointed Night Superintendent, succeeding Miss Hart.





THE DOCTORS WHOSE REPORTS THE WHOLE EMPIRE WATCHED.  
THE MEDICAL MEN WHO ATTENDED KING EDWARD DURING HIS LAST ILLNESS.



1. SIR FRANCIS H. LAKING, Bt., G.C.V.O., M.D., Physician-in-Ordinary to the Late King.
2. SIR JAMES REID, Bt., G.C.V.O., K.C.B., M.D., Physician-in-Ordinary to the Late King.
3. SIR R. DOUGLAS POWELL, Bt., K.C.V.O., M.D., F.R.C.P., Physician-in-Ordinary to the Late King.
4. DR. BERTRAND DAWSON, M.D., F.R.C.P., Physician-extraordinary to the Late King.
5. DR. ST. CLAIR THOMSON, M.D., F.R.C.P., F.R.C.S., the Eminent Specialist in Diseases of the Throat and Nose.

The first bulletin concerning the illness of the late King, which was issued from Buckingham Palace on the evening of Thursday, and stated that His Majesty's condition caused some anxiety, was signed by Sir Francis Laking, Sir James Reid, and Sir Douglas Powell. Later, Dr. Bertrand Dawson and Dr. St. Clair Thomson were called in. The bulletin announcing that the King had passed away bore the signatures of Sir Francis Laking, Sir James Reid, Sir Douglas Powell, and Dr. Bertrand Dawson. Sir James Reid was in attendance on King Edward during His Majesty's recent visit to Biarritz.—[Photographs Nos. 1 and 4 by Lafayette, 2 by Hughes and Mullins, 5 by Elliott and Fry.]

# SOUTHERN CALIFORNIA PRACTITIONER

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Editor,  
DR. WALTER LINDLEY.

Associate Editors,  
DR. GEORGE H. KRESS and DR. JOHN W. FLINN.

Assistant Editors,  
DR. H. BERT. ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW  
and DR. F. M. POTTENGER.

## THE OLD DOCTOR—THE YOUNG DOCTOR—THE IDEAL DOCTOR.\*

BY J. WILSON SHIELS, ASSISTANT PROFESSOR OF MEDICINE IN COOPER MEDICAL COLLEGE,  
SAN FRANCISCO.

Deep in the depths of my professional pride rests the honor of this opportunity. I trust that I shall be found worthy of it.

When I accepted the invitation of the Arizona Medical Association, I was under the belief that a paper of specific character would be acceptable, and to that end wrote one on, "Lumbar Puncture—Its Present-day Diagnostic and Therapeutic Value." But when I received the program, I realized that such a specific dissertation was not required—nay, not desired, for on the same line as my name stood boldly the word, "oration." "Oration on Medicine—J. Wilson Shiels, San Francisco." Quite enough to give any one heart block.

According to any self-respecting dictionary an oration is an elaborate public speech, treating some important subject in a dignified style, according to the rules of oratory; thus, to a diffident doctor the word, to say the least for it,

becomes pregnant with alarm. I grant you, no subject could be more "important" than medicine, and I admit that I know of no formal method of speech sufficiently "elaborate" to do it justice, and I well know that I am not a master of oratory. Yet, by your gracious patience, I will paint a word picture, and when I lay aside my poor brush I trust that you will see in the scene a strong old-world background—the background of Art, the "Old Doctor;" a glorious new-world foreground—the foreground of Science, the "Young Doctor;" and a middle distance merging almost imperceptibly into both—the "Ideal Doctor."

Let us paint the background. The wonder-work of the Old Doctor fills the measure of our memory with respect—nay, adoration. The history of his life makes glorious our profession. If there be any of them left, "grapple them to thy soul with hoops of steel,"

\*The Oration in Medicine, delivered by request before the Arizona Medical Association at Phoenix, April 20, 1910.



for it is to them we owe the full development of that layman's confidence so imperative for the proper conduct of our work. All other things being equal, the poor privilege of old age is given to us all, yet if we were to live as long as a certain Claudius, we could not end an Old Doctor, for the present time lends not that necessary grace to the true definition of an Old Doctor; a definition summed up in the words of Malcolm: "But at his touch, such sanctity had Heaven given his hand—they presently amend."

The sanctity of the Old Doctor was not given him by books, or by research; it came to him from God. A just reward for his ever-ready compassion. His life did not call for struggle; he never was too busy to be mellowed. He concerned himself not with the exact nature of suffering, but with its cure. The phrases, "Life's Mystery" and "Clinical Material" were not synonyms to him. His was a gentle art, not a stern science; a profession, not a business; he never knew what a card system was! He shouldered the burden of others shame, and their gratitude was such that this great self-denial never cost him much. Nature's cures gave him a "true delight in life," and his daily praise of her wonders all unconsciously developed in him attributes of character the possession of which prevented ostentation. He was never "thirsty after tottering honor," nor did he try to tie his "treasure up in silken bags to please the fool and death." The people's love, in olden days, made him; their present indifference unmade him. His birth, a school of art; his death, a school of science. Faith created him; ridicule destroyed him. In the rich soil of appreciation he flourished; in the poor soil of disdain, he faded. And so he is passing, and we, more than the public, are at fault. Our colleges are developing bright young men; they are teaching them wonderful things, and

marvelous matters most necessary for the proper care of suffering humanity. But are they, at the same time, teaching the psychology of sickness so well known to, and so well utilized by, the Old Doctor? Are they telling the young doctors that they should clothe their deep learning with subtle sympathy, so pre-eminently possessed by the old doctor? Are they at all times endeavoring to make the young student realize that a pulse tracing, however valuable, is not a sentiment, and that the old doctor's finger upon the pulse was half the battle won? Are they impressing the young graduate with the knowledge that there is a soul in every sufferer, and a sad heart in every anxious relative, and that neither the sufferer nor the relative is **particularly** keen to have him consider the whole situation as nothing but a mass of clinical material? I am afraid not. Of course, the curriculum of a university cannot contain definite teaching of this sort; it is altogether too ideal—too poor in science to be a factor in the now-a-day education of a medical man. Nevertheless, it behooves every teacher to emphasize, at the bedside, the old-fashioned methods of considering a case.

One cannot blame the student if he develops into a cold, matter-of-fact scientist, for bio-chemical reactions hold his attention to the exclusion of nearly everything else; therefore, it becomes the imperative duty of the nature clinician to grind off, if they exist, the rough, unsympathetic points in the student's character, against the great *groanstone* of human suffering.

Now let us paint the foreground—the Young Doctor. That I may in no sense offend, let me tell the story of my first consultation with an Old Doctor. This took place a few months after my graduation, and shortly after my return from the continent. I was a newly-fledged graduate and a very serious problem to all who had the misfortune to meet me.

I suffered acutely from a disease which I have studied with interest ever since, and which after careful investigation, I now call "Post-Continental Macro-Cephalus." That you may thoroughly understand just what kind of a morbid product I was, I will give you the salient points of this new fever, in proper text-book form; and state in all truth that I was a most typical case.

#### A NEW FEVER.

##### *"Post-Continental Macro-Cephalus."*

*Nature.*—A non-infectious, specific fever, or heat; probably caused by an overindulgent relative; occurring in newly-fledged graduates after a too short stay—say six to eighteen months—at, or about, or near to a continental medical school of note—or otherwise. Having many definite lesions, and terminating by a most damnably slow lysis.

*Etiology.*—An organism well known and feared by the profession at large—*Bacillus Caput Magnus*. This bacillus was first observed by the Old Doctor about twenty years ago. It is found to grow vigorously on a nutrient media of "Mazuma," supplied, as a rule, by an overindulgent proud parent or other relative. The culture takes place along the entire line of inoculation, and its appearance on this media is of no importance except to the aforesaid father or relative. It is interesting to note that this culture will retain an exceeding vitality just as long as it is allowed to remain upon the above nutrient media.

*Morbid Anatomy.*—All in the head.

*Incubation Period.*—About one to two weeks, which is the time taken to travel from the said seat of learning to the original school or city of birth.

*Invasion.*—Sudden, and profoundly disgusting to the onlooker.

*Course.*—Onset.

Chilliness—acute bighead—general appearance creates nausea. Diarrhea of words, especially upon introduction to the Old Doctor. This is generally associated with great restlessness on the

part of the patient, and profound prostration on the part of the Old Doctor. Expression excited—almost fatuous. The rash appears when office is taken. The character of this rash depends upon the specialty of the patient.

*B—Symptoms.*—Increasing bighead. This sign is alarming, and requires immediate treatment. Increasing diarrhea of words with a constipation of original ideas. Insane desire to rush into print—*Puritis Scribendii*. Appearing at all medical functions and exhibiting a pleasant sensation when observed by chairman during discussion. If not noticed, becomes profoundly depressed and sullen. Note—There is much method in this mental attitude. At all times evidencing a languid tolerance of the papers, remarks and diagnostic findings of Old Doctors. This last symptom is frequently associated with an idiotic desire to fit Professor Von Heidelberg's diagnoses to all cases either seen or described. Signs of imperfect training apt to pass involuntarily. Should this occur, patient suffers great discomfort, and may be the turning point of his disease, adding greatly to the chance of recovery, but more frequently it causes an exacerbation. Tongue rather coarse when speaking of the other fellow's ability. At all times using the microscope to the exclusion of more natural methods. Obsessed on blood pressure, opsonic index, vaccines, animal extracts, venous tracings, etc., etc., etc., but mind is dull when confronted with measles, mumps, toothache, headache, backache, and other common ills of life. Mind especially dull when confronted with approaching dissolution. Suffers from acute mental anguish when looking upon Professor Soandso, of his old local school. This anguish is caused by the wonder that he should have ever learned anything from him. The above symptoms are frequently divided by acute knowitallitis.

*Defervescence.*—Stated above—a

damvably slow lysis. Note—During the latter end of this, the patient is very silent and avoids conversation. This is a good sign and should be watched for anxiously.

*Convalescence.*—Slow and pitiful.

*Relapses.*—Frequent.

*Complication.*—None.

*Diagnosis.*—Easy. One can't miss it. It is forced upon the most casual observer. There is nothing in the world of medicine like it—Thank God!

*Prognosis.*—Guarded. As stated above, glaring clinical error may pass involuntarily; if so, the patient gets on to himself, and mends rapidly—this is known as atypical crisis—VERY RARE. Or association with young medical men of marked ability, but without conceit, may cause the sufferer to abort, with the happy result of making the patient reach a state of mental repose, and great clinical strength, enabling him to eventually end a highly-respected and most useful physician. THIS IS ALSO RARE. In very severe cases of the malady, the sequela is utter oblivion in some obscure village.

*Treatment.*—Vaccinate with ridicule. Be sure to get this virus from a reliable firm; would suggest Phil Jones & Co.—any other firm, with equal ability, will do. While using this, do not care about the index. It is really of little import whether there be a positive or negative reaction, for in very acute cases the patient ought to be allowed to kill himself.

A very safe but somewhat old-fashioned treatment is summed up in the therapeutic axiom—"Hard Jolts by Seniors."

Yes! I had every sign and symptom of this condition when I graciously accepted the position of "locum tenens" to Dr. Wilson of the little town of Uddingston, near Glasgow. I felt assured that the then known medical world had its eye turned kindly, and

admiringly, toward me. This feeling came to me calmly, and without surprise, for I was obsessed with my own importance, and felt that, after all, there was very little left for me to learn. The fine effect of age upon experience had never been brought forcefully home to me; the ways of the Old Doctor were as a mystery, and had I had a beard, I would have smiled in it, thrust the tongue in cheek, and muttered to myself, had any ordinary practitioner made even the slightest effort to instruct me in matters medical. Content with my world, and particularly condescending to the world of others, I had a fine spirit of toleration for any other medical man's opinion within, or without, my environment. With this pleasant sense of importance I journeyed to Uddingston. It was not for the small sum of three pounds per week; dear me, no!! God and I knew that this was underpaying, indeed—I simply went there that I might do good to suffering humanity, to the poor people of Uddingston during the fortunate absence of Dr. Wilson. I knew that they would be grateful beyond measure that overwork necessitated Dr. Wilson taking a rest; they would soon appreciate the benefit of a real Doctor's opinion.

When I arrived, I admit I was somewhat surprised to find no one at the station to meet me. To say the least of it, this was a social oversight, but it simply emphasized my conviction that there was much to impart to Uddingston and its people.

Pardon me, when I say there was no one to meet me. I am not quite correct. After walking to and fro on the platform, looking here and there for some evidence, however slight, that Uddingston rejoiced in my arrival, and after keeping up this sentry-like procedure for a long enough time to thin the travelers going and coming, and to allow of the starting of a local train, which I remember took place after the



following conversation between the conductor and the engine-driver:

Engine-driver (leaning over the rail of his cabin): "Johnny! De ye no think it's time we were going?"

Conductor (Busy Munching a Bun): "Aye, Bob, but my mooth's too foo' o' buscut to blow the whussel."

Engine-driver (resignedly): "Weel, then, I'll jest start we oot it." He pulled the lever and the "penny a miler," puffing and blowing, jerked its way out of the station, leaving me the only stranger on the platform, thus lessening the responsibility and the embarrassment of a bare-footed laddie sent to meet me. His diagnosis was no longer a process of exclusion; he came forward with purpose, and said: "You'll be the young doctor that's come to work for Doctor Wulson?" I answered in the affirmative, and he replied: "Weel, then, come along wee me, walk this way." I obeyed, and walking meekly behind my little guide, I suffered the first setback to my pride. He led me to my new home, rang the doorbell, then fled. The door was opened by a winsome little housekeeper. I said, "I am Dr. Shiels," and was about to pass in, when she said, "Please wipe your feet." I found myself doing this without protest, until she said, "That'll dae, my laddie; they're clean enough noo." I need hardly say that "Here endeth the second lesson!" carrying with it a didactic force which I have never forgotten.

During the first few days, I was very busy with Dr. Wilson's patients. How I pitied them in my heart! How wretchedly they had been treated. I gave them all the benefit of deep diagnostic consideration, excluding from the very ordinarily sick, with much complacency, such diseases as amyotrophic lateral sclerosis, overflow lesion from the sensory tracks, Addison's disease, and a host of other typical text-book maladies, which, fresh off the college

fire, were sizzling within me. But I remember even now with a shudder my utter sense of uselessness when I was called upon to pull a tooth, and I never see a sign "Painless Dentistry" that I do not recall that man's agony.

You must know that in the town of Uddingston lived many miners—rough fellows living deep in the earth for days and days at a time, and the perfidious medical contract held strong sway amongst them. Therefore, on certain days of the week, I was forced to wander aimlessly through lane after lane of two-room cottages at the beck and call of every illiterate Tom, Dick, or Harry, Madge, Belle or Mary. In parenthesis, I may state, that here thrived the treacherous cheapening medical association principle, which, to my way of thinking, might well be made the subject of vituperative oratory.

Living this life of a peripatetic medico, I soon became familiar with the work of the other doctors who had their days of duty in this regard, and I met them all, except old Dr. Wood. I never met this old gentleman, but on occasions I would see him in the distance sitting in his queer, old-fashioned gig, drawn in the most leisurely manner, by his raw-boned, over-sized mare, seemingly as old, and just as well known, as the doctor himself. I was told over and over again the story of old Dr. Wood and the Duchess of Roxhill, and I tell it now only to accentuate the character of his mare, Maggie. It seems that Maggie and the Doctor had a very definite route, and when once her head was turned home, no amount of persuasion or thrashing would make her take any road except the one leading to her warm stable. So, one fine day, when old Dr. Wood—half way over his practice—was called suddenly to the Duchess by a special messenger, who came galloping, in great anxiety, and the whole village stood agape and agog with the honor to their doctor—

(for it flashed like wildfire from one to the other, "De ye ken her ladyship has sent for Dr. Wood, and no far a city one?")—he took the breath away from his hearers when he said to the obsequious messenger: "Tell the Duchess she'll jest have to wait 'till the morning, for the mare will noo gang doon that road for me, or her, or onybody else; and what's more, I don't blame her, and you may add my compliments to her ladyship, and tell her that I'll be damned if I'll walk doon." Now I think, gentlemen, you have a pretty definite idea of the mare, at least, if not of both, and I will hurry on to the end of my story.

As I have said, the old doctor and myself at this time had never met, but I was quite familiar with his work, 75 per cent. of which consisted in well-applied poultices. I kept my temper for ethical reasons, but the end of my forbearance came, when, after deep thought, on a certain Monday, I diagnosed a haemophilic knee, to find on Tuesday that Dr. Wood, without any thought at all, had ordered a poultice! This was altogether too much! This was more than the scientific brain could contain, and I immediately rang up my friend, Dr. Littleburg, who, I may mention, also suffered from Macro-Cephalus! I opened my heart to him, and he, in his turn, sympathized; and that he might do so more thoroughly, invited me to smoke a pipe with him that evening. Ah! with what delight throughout the remaining hours of the afternoon did I contemplate the meeting of two kindred scientific souls. We sat far into the night hammering Dr. Wood to our mutual satisfaction. When we had exhausted common or garden adjectives, we coined them. How was it possible for such a man, so poor in address, to exist, even in such an outlandish hole as Uddingston? A town although devoid of culture, yet surely with some common sense. How

could a suffering people hold confidence or respect for one whose clinical errors were as glaring as the sunlight! So forth and so forth!!! I went home happy with the knowledge that at least one man in Uddingston knew Dr. Wood for his real worth.

Some time after this delightful evening, Dr. Littleburg called me up over the telephone and said he would be much obliged if I would consult with him over a case of extreme difficulty, stating that he should like me to share the responsibility, even if I could not advise him as to the treatment. I desire to pause here and point out that this last remark was pathognomonic of Macro-Cephalus. This was my first consultation, and I could hardly hold the receiver, so great was my excitement. I quickly asked Dr. Littleburg to submit for my consideration the salient signs of his obscure case, "ah"—which he desired me to "Ah—to—ah! analyze." He did so, and I listened intently, all the while with the deliberate intention of looking up the subject in Dr. Wilson's text-books. Thanking him again, I told him I would be at his service within the hour; hurriedly hung up the phone and made a bound for the library shelves. Here I was met with disappointment. Dr. Wilson's books were few and far between, dust covered, and in no order, and nowhere could I find a definite illness which fitted in the very least the case in question. So I hurried to my first consultation armed with no other weapon than my consummate conceit.

In the kitchen, with the anxious parent listening to every word, we, with much dignity, went over the signs and symptoms. We then went into the sick room, and there found a young man of about eighteen years of age, anxious, breathless, dusky and muttering, with eyes open and senses shut, and frequent pulse. I walked rapidly over to him, threw back the bed clothes, and found

a great bubo staring me in the face. After the momentary shock of this had passed off, I proceeded to percuss him with great pride. His lungs, his heart, his liver, and Heaven knows what. I peered down his throat and his ill-smelling breath nauseated me, but do what I could, not the faintest tract of a diagnosis came to me. I almost got into bed with him in the effort to find it. I paused, disheartened, pulled myself together, and in my very best professional manner and tone, suggested some trivial remedy, and said that with Dr. Littleburg's permission I would call again, for I was deeply interested, and still trusted to be of some service to the poor young man. I had heard Sir Patrick Paton say something like this in my own house when my father was ill, and it came in very handy at this time. I hurried home again, looked up Dr. Wilson's measley books, but without avail. At eight promptly I was again in the sick room. I went through the same gymnastics and then beckoned Dr. Littleburg into the kitchen, and started a whispered conversation with him in the corner. This was suddenly interrupted by the father of the sick lad, who said, "What are ye doin'?" "Consulting," we answered. "What's that?" said he. We hadn't the heart to tell him, and he continued: "Weel, consultin' or no consultin'. I do not hear ye talking much about Dr. Wud, and if ye don't want him, by God, I do!" We said we would be very pleased, indeed, to consult with Dr. Wood. I assure you, we looked forward with infinite pleasure to his discomfort.

A little lad was sent post-haste to find the doctor, and in the meantime we sat quietly and inhaled and exhaled the foul air of the room, for it had started to rain in torrents. After a while, the boy returned, breathless, stating that Dr. Wood was too busy to come now, but would come about eleven o'clock. So there was nothing to do but wait. I

can remember nothing more horrible than the awful silence of that room, broken only by the breathing of the sick man. Eleven o'clock—no Dr. Wood. Eleven-fifteen—still no Dr. Wood; and raining in torrents. Eleven-thirty—hark! Slip-slop—slip-slop, slip-slop; up the road came the mare, and we could hear outside the doctor's voice—"Whoa-a Maggie, whoa-a!!! Can ye no stand still—whoa!!! Ye think ye'd hae enough common sense to stand still and take a rest when ye can get one! Whoa-a-a!!! God, this is an awful nicht; Johnnie, tak the mare round to the bealdy side o' the hoose"—and then the door opened and the rain and the fresh air swept into the room, and for the first time I stood face to face with old Dr. Wood. He had a wonderful head. On his face, not a line that did not speak for hope and gentleness. He was wet through, and his bushy eyebrows dropped water. He seemed to me to carry the dignity of a big Newfoundland dog. He started to unwind a wet cravat, and after a turn or two, he stopped, began to sniff—(the Newfoundland effect became more impressive)—and a look of anxiety came over his face. "Sniff—sniff—dear me, dear me, this is interesting," and another unwinding of the cravat. "Hem—hem—I'm afraid I'll have to notify the authorities—sniff—sniff—how long has the young man been sick? Hem—hem, this is very interesting—you've got a case of *typhus* fever, very common in my youth." God! I was struck dumb with fear, for it flashed upon me that the old man was right, and that the horrid, nauseating, musty, cheesy odor that I had been so innocently inhaling, was truly typhus. I turned to look at Dr. Littleburg—he was the color of this paper. I began to think of the incubation period of typhus fever—one to twenty-one days, one to twenty-one days, one to twenty-one days, kept bubbling in my fear-stricken brain—and then with light-



ning rapidity, I remembered seeing a long stethoscope in a museum, that had been used by a careful physician many years ago when examining typhus cases, and I had been almost in bed with the patient!

And then Dr. Wood diabolically rubbed it in. He opened the windows, we had kept them closed; he stimulated—we had depressed; he nourished—we had starved; he spoke of a crisis—we had prayed for a slow convalescence; he suggested brandy *per rectum*—we had said he was too weak to move; he sent all the relatives out of the room into the kitchen—we had forgotten them; he reported the case—and us!! And from that day to this, I have realized, I trust, the wonder work of intelligent observation; the necessity for keen inspection; and that years of experience are necessary to the proper art of correlation.

Most of my diagnostic errors have been directly due to the fact that I have seen without eyes, and heard without ears. I have been over and over again a blindfolded clinician, and I have known from personal association with students and post-graduates of many years' standing that their greatest fault has been an inability to take a full view of physical condition—(a low power view of physical conditions, will, I think, explain my meaning better). Most of us are inclined to take a high-power view of some one thing, and thereby lose the powers of observing the clinical field in its entirety. It seems a pity that we fail in this regard, for many quite worthy people, by no means without the power to be most approved clinicians, either from poor teaching at the first, or pure carelessness, at the last, frequently allow men of much less ability, but with more method, to demonstrate to their everlasting chagrin, some simple point, pregnant with import, and necessary for the proper consideration of the case.

That I may not be understood to pedestal myself as a medical Sherlock Holmes, I remember treating, in a hospital, a long and serious typhoid. I had every convenience, and the fever chart was kept in a very praiseworthy manner by a very painstaking nurse. Although I looked at this chart daily, it remained for my consultant, Dr. Cooper, to draw to my attention a certain place, far back upon the roll, where evidence of some secondary inflammation stared me in the face; for when we investigated we found physical signs indicating that the patient must have started a pneumonia at that time, thereby proving my consultant's contention and convincing me.

You must know that it is quite a hard matter to convince a man he is in error, more especially when his self-honesty makes him somewhat ashamed of himself. We all err, and that often, but we are not particularly anxious to publish our blunders, although I am free to maintain that if papers were written by men showing the error of their way, we would derive more benefit from them than we do from long-winded, and pride-ridden, treatises of marvelous diagnoses, and therapeutic triumphs.

While we are on the subject of inspection, and before we further contrast the New Doctor with the Old, **permit me** to make a plea to all teachers of diagnosis: Harp back to old clinical methods, and keep the student ignorant of the new, until such time as he has learned to use those things which God gave him. Perfect him, I pray you, in the recognition of, and differentiation of, intensities of percussion pitch. Let him practice this daily upon the *normal* chest, the *normal* abdomen. Educate his finger to appreciate the variations of blood pressure, and then, and then only, reward him with a **blood pressure** instrument, and the satisfaction of a diastolic or systolic reading. Coax him

to apply his own ear, or the simplest kind of a stethoscope, to the various natural and unnatural sounds of the body; and then watch him throw away the wonderful, the ingenious, non-roaring phonendoscopes, that at this late date flood the market. And then, when the X-ray machine, and the blood-pressure instrument, and the phonendoscope happen to be all out of order at the same time, he will thank you with all the fervor of a grateful heart for the sense of security that comes to him through the knowledge of his own ability. The banker realizes that the ready-adding machine is a great and accurate labor-saving device, and he is willing to pay hundreds of dollars for it, and to pin his faith upon its findings; but, at the same time, he takes mighty good care that the person he employs to use the adding machine is one who is able to compute without it. In all walks of life it is only the originality of a strong and forceful nature that can prevail, when face to face with untried problems.

Let us continue our consideration of the Old Doctor and the New—the background and the foreground of our picture. What should be the proper attitude of both toward modern diagnostic methods?

Old Doctor Wood (or for that matter, graduates of, say, twenty years standing) cannot be expected to personally perform the difficult laboratory technique of bio-chemical reactions; but he should be made to value them highly, to appreciate them as wonderful advancements, and to utilize them when in doubt.

Yes, the present wonderful advances in serum diagnosis, and treatment, must necessarily be quite unintelligible to the Dr. Wood type. Many terms have been coined to express certain agents, and the effects of their activity, which were utterly unknown a few years ago. Even if you were to tell Dr. Wood that an antigen was a generic term used

to indicate all agents of an organic character which, when introduced into the blood, developed within the serum new substances inimical or favorable to that body, it would convey nothing to him. The same might be said for a definition of antibodies. It would not be fair to expect him to know the various steps of the Bordet-Genou reaction, or the ingenious application of it by Wasserman. The diagnosis of syphilis by fixation of the complement is a proper and a well-turned phrase, but it is Greek to Dr. Wood, yet at the same time he must be made to understand that this reaction, and its modifications, are of great value in the diagnosis. I think that the best way to awaken in him a true sense of their value is to prove to him their great usefulness in general practice. Show him that a positive Wasserman will permit him to start treatment at once, and therefore that it is no longer necessary for him to anxiously await secondary signs and symptoms, which up to this time he has most rightfully and emphatically insisted upon. Show him that the reaction will tell him if a process is the result of syphilis or not; for example, prove to him that a positive reaction in tabes and paralysis absolutely confirm his clinical observation of years concerning their syphilitic relationship; that the serum diagnosis of syphilis will give him the etiological factor in many cases of aneurism, aortitis, and general arteriosclerosis and thus simplify his differential problem. He may turn round and say to you, "Ah, yes, young man, but when I am in doubt, I always play trumps, and trumps, you know, young man, are potassium iodide;" and you may answer him, just as quickly, by saying, "Why be in doubt?" By this time you have him wavering. You tell him that the many cases of syphilia-phobia that have bothered him for years can be nearly

always cured by a positive statement to the patient—that he does not so suffer, and that a convincing tone will be given this statement by a belief in the value of the reaction. When he tells you that of all the difficulties he has had to contend with, that of eliciting a specific history from a woman has been the most difficult, and that over and over again he has been called upon to differentiate syphilitic varicose ulcer from traumatic varicose ulcer, in old women; and that he has treated such always in doubt; and you then tell him that this life-long doubt can be cleared up in a day or so by the serum diagnosis, you have him listening attentively, and ten to one you have him convinced when you tell him that any doubt he may have regarding a wet nurse, he is about to employ, can be cleared up by this reaction, or at least calm his fears.

When you have him convinced, tell him not to endeavor to do this test himself, but rather to employ one having no imagination, or much clinical knowledge; but who is versed in chemistry and is thoroughly acquainted with humeral pathology. For although the technique of the Wasserman reaction, when one reads it, seems simple enough, any laboratory man will tell you that the details of the test cannot be written, and that the personal equation is a mighty strong factor; for example, it is necessary to grade the strengths of the antigen, the dilution of the amboceptor, etc., and all this requires a very careful training in laboratory methods, to say nothing of the strict asepsis that must be obtained. I am told by Dr. Oliver—quite the most efficient man in our city, in this regard—that in the preparation of the complement he takes into consideration, very carefully, the strength and the age, and I might say, the personality of the guinea pig! An ordinary practitioner cannot be expected to know the personalities of guinea

pigs! It is quite enough for him to know, even superficially, the personality of mankind. Thus it is wise for the well-trained, old-fashioned clinician to stand amazed upon the banks of this great river of science, and proudly watch it rushing on to the open sea of enlightenment, where sail the ships of discovery to strange ports, bringing deep ladened argosy to the harbors of Understanding. Let him watch the river whirling and eddying around problems until they are loosened and carried on to that sea; warn him that the rushing waters may make him dizzy, and that if he does not hold firmly to the support of the older methods, he may fall in and be drowned, for he is now too stiff to swim, whatever he may think to the contrary. The river of science is cruel and exacting, and, as we know, has been the undoing of many a half-fit man.

In this way the background, with its strong, rugged force, is merged into the middle distance.

Now for the foreground—the Young Doctor, with all his science and all his lore.

Mark you, I speak of the understudy; I am not referring to the brilliant originals. They are the select few. I am an understudy. One can hunt throughout the whole literature of medicine and nowhere will one find a "Shiels' Sign" or a "Shiels' Test" or a Shiels' anything. But from what little teaching I have done, or from what little explanation I have made of the work of others, and after ten years' close association with the best of my profession, I can, I hope, with all modesty, point out the seriousness of allowing the young doctor to imagine for a moment that modern bio-chemical methods are the true foundation stones of a diagnosis. They are not, and that is why I am trying to merge the foreground into the middle



distance, and if necessary, onward to the background!

Young Doctor! Know the value of lumbar puncture in the diagnosis of acute nervous disease, cerebral hemorrhage, of cerebral blood-pressure, of tabes, of general paralysis, of cerebro-spinal syphilis, of tubercular meningitis, of certain forms of hydro-cephalus, of the value of the lymphocyte count and the significance of the polynuclear cell in the fluid so procured; know that the Nonne Test is a saturated solution of ammonium sulphate, added to an equal quantity of cerebro-spinal fluid—free from blood—and that a positive reaction is a distinct cloudiness in three minutes; know that the Noguchi reaction consists in mixing .5 c.c. of a 10% butyric acid in 9% salt solution, with .1 c.c. of spinal fluid—free from blood—and then boiling for a few moments and then adding quickly a 4% caustic soda solution, and then boiling again and getting as a positive reaction a flocculent precipitate which settles in a few moments; know all this if you will, and it is your duty that you should, and that all these tests are of extreme value in doubtful cases of general paralysis, tabes, or cerebro spinal lues, as before mentioned, and that they may be of great help in coming to a conclusion as to the gravity of functional nervous symptoms in patients with only a vague history of lues, and that they associated with a Wasserman reaction in the blood serum and cerebro-spinal fluid may settle the etiology of many so-called functional conditions that have resisted long and careful treatment, e.g., epilepsy, etc.; or quickly settle the diagnosis of a gumma; know all this, I say, but in Heaven's name, don't go puncturing every spinal column you come across. Remember that one infected cord will outweigh the value of a hundred brilliant diagnoses; do not forget your

physiology in the search for disease; remember that the cerebro-spinal fluid, the dura, the dural space, the sub-arachnoid space, and the pia have all important protective functions and therefore must be protected. Understand and utilize every bio-chemical reaction known to science, but please don't overestimate their diagnostic import at the expense of old and time-tried clinical methods, and above all do not study them to the exclusion of ways of treatment practiced by the Old Doctor.

Never forget that a layman's idea of a doctor is one who cures disease. This, after all, is not a bad definition, and one that holds good common sense. The Old Doctor, by his ready care, has taught the world to look upon us as public servants, ready and willing at all times to obey his call. This is all the layman desires. He is not concerned with your knowledge of physiology, or pathology, or any other "ology," if it comes to that. It is nothing to him that you can trace the fillet, he never heard of the fillet, and as far as that goes, when he is sick he is not eager to; the fact that you are well acquainted with the weird phenomenon of deglutition is of very little import to him, if you are not treating him for some defect of it; a disquisition upon Ehrlich's theory of immunity might be very interesting to him, if he were well, but he is not well and he has called you at 3 a.m. to relieve his pain, his anxiety, his distress. He expects you to do this at once, and, that being done, he demands that you find the cause of his trouble and remove it if possible.

Not a bad idea of a doctor after all is said and done, for we know that to remove the cause of a disease is the primal scientific basis of all honest treatment. We can only reach this primal basis by a process of exclusion, and to do this we must know what to

exclude. Such ability depends upon a familiarity with the signs and symptoms of all known disease, and qualifies the person possessing it to the title of diagnostician. To be a diagnostician is the ideal in medicine. Diagnostic ability is the basis of rational therapeutics. Diagnostic ability does not exclusively depend upon the knowledge of how to perform a Cammidge, a Nonne, a Nogochi, a Wasserman, or an opsonic index.

To be a worthy doctor, one must live always with the courage to cure, a courage born of a practical knowledge of all honest curative methods. Search diligently after scientific attainment, but turn to the Old Doctor for your general treatment rules and your prognosis. Let me implore you to follow him in this latter regard. He was never caught putting a time limit on the life of an individual; he realized that this was almost a sacrilege, to say nothing of its bad policy. He found out that it was not the nicest thing in the world to have a man whom he had given up for dead, last spring, greet him, in the summer time, with the grasp of a giant, and tell him he never felt better in his life. The Old Doctor never told a man with a spinal myosis, an abnormal reflex, and a patch of anaesthesia, that he was a locomotor ataxic, and therefore doomed; for he knew very well that many such men never get worse, and frequently outlive healthy men by many years. He knew that such was the history of many "root" affairs and felt that his duty ended when he taught the patient the importance of economy in all things, and at the same time took care to ease his suffering. Nevertheless, the Old Doctor would have you, when the end is near, look for the "writing on the wall," and when plainly shown

there, yield your place to relatives; for nothing is more softening to great grief than the after-knowledge that tender, loving hands caressed the dying.

And then again, the Old Doctor would have you know the value of Nature and her soft methods. He would have you learn all you can with a contrite heart, knowing that the time will never come when you may know it all. He will tell you that after a long and active life, doing much good and little harm, he found himself like one in a wilderness of ignorance, calling aloud for light, more light; and that his greatest triumph came to him when he had kept the patient alive a long enough time to cure himself. While telling you this, of course, he does not realize that he is telling you all about antibodies and the like!

Thus, gentlemen, is the foreground—Science—merged into the background—Art—making a middle distance—the ideal in medicine.

Thus do we realize that the cure of conditions of the mind, or body, is our great aim. To return the individual so suffering, to his walk of life, with ability to perform his duties to his own satisfaction. To make a sickness of mind or body appear as a nightmare, past and forgotten; to give that sense of blessed relief that has come to us all when we awaken to a sunlit, bird-singing morning after a night of horrid dream. This glorious aim must be clothed in honesty for it would be criminal to make a person, weakened by disease, a slave to a false method of cure, having as its basis a treacherous drug or a perfidious suggestion. But to do all honest things to bring about ease of mind and body, is the true and noble aim of our profession.

## OSTEOPATHY BY AN OSTEOPATHIST.

BY DAIN L. TASKER, D.O., LOS ANGELES, PRESIDENT CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS.

To the average physician osteopathy is an upstart variant of massage, indigenous to America, conceived in ignorance, vitalized by self-assurance and nourished by public credulity.

Probably the reason most physicians classify osteopathy as massage is because they know so little of the principles and practice of the latter. Misconceptions usually are eliminated by time and closer acquaintance. "It will all come out in the wash."

Osteopathy has been a growing, developing school of medicine since about 1894. Before that time it could not be dignified by the appellation "School of Medicine." At the time mentioned, the medical world was fully cognizant of various ways of influencing the body by systems of movements: massage, Swedish movements, Taylor's movement cure, etc.

These systems, especially massage and Swedish movements, differ very much, in that massage represents friction, while Swedish movements exemplify leverage of a mechanically corrective character. The former finds its chief therapeutic application in accelerating the venous side of circulation, with the consequent increase in functional activity of the whole body. The latter finds its chief field of usefulness in orthopedics. Both of these systems, although used for many years, have not made any great impression on the lay mind.

Osteopathic movements are not characterized by friction, are not addressed to the venous side of the circulatory system and are not necessarily applied to the nude body. Since no frictional movements are used, a moderate amount of clothing is no obstruction. There is a similarity between osteopathy and

Swedish movements in that leverage is fundamental to both. There is a very distinct and essential difference between them in that the field of application of Swedish movements has been largely limited to orthopedics while osteopathy has undertaken to be of service in all departments of clinical medicine. Herein lies the basis for controversy between it and other schools of medicine.

It ought to be unnecessary for a therapeutic method to need a special pleader, or defender, but we all realize the tendency of physicians to use the personally known method to the exclusion of others.

Manipulation is primitive instinctive therapy. The tendency to make self use of friction, leverage and compression is recognized by everyone. Develop this instinctive effort by purely empirical means and we have the first step toward a rational therapy. Base every movement on a knowledge of structure and function of the part manipulated and we have a long step toward a scientific therapy. Add to a knowledge of structure and function an adequate knowledge of pathology, bacteriology and the natural history of disease, any form of therapy will rise to a new dignity and usefulness because its uses and abuses, its applications and limitations will be sharply defined. It becomes then a scientific therapy founded on instinct, experience and co-ordinated departments of biology.

Whether osteopathy is bringing anything really new in therapeutics is not so essential as is the fact that its educators are co-ordinating the facts of embryology, histology, anatomy and physiology in a way to lay a rational foundation for the interpretation of the signs and



symptoms of disease. Let us look into this: Embryology teaches us metamerism, the division of the body into segments having somatic and splanchnic divisions; histology teaches us the development of special tissues for special labors within these segments; anatomy teaches us the mature arrangement of the tissues, and by comparing the mature with the embryonic we realize something of the changes produced by migration, fusion and splitting of muscles, and developing of viscera. Thus, since the innervation of muscles does not change, no matter how far they migrate, distant articulations are governed by nerves which seem to bear no segmental relationship. Physiology teaches us the unity of the body, structural and chemical. The integrative action of the central nervous system is a study of large importance to the osteopath. Sherrington's work in this field of physiology is of inestimable value. His terminology is clear and concise. His experimental work renders clear some of the phenomena which we encounter daily.

Reflexes tend to remain within their own segments, i. e., take an embryologically considered segment, a reflex initiated in either its somatic or splanchnic division will tend to limit its phenomena to the tissues of that segment, unless the exigencies of needed protection require reinforcement from segments above or below. Reflexes are evidences of adaptive or compensative necessities of the organism. They represent varying degrees of offensive or defensive activity, at least aim at protection of the organism. The human body is protected by its sensory nerves. These are classified by Sherrington as extero-ceptive, intero-ceptive and proprio-ceptive, i. e., those receiving impressions from external surfaces, from internal surfaces and from intercellular surfaces. Thus the central nervous system integrates its action based on the sum of its incoming impulses. Not all

sensory impulses call for integration beyond the segment in which they arise. Since the body is subject to severe extero-, intero- and proprio-ceptive reflexes due to efforts at adaptation to extremes of temperature, mechanical strains, food and bacterial poisons and all that long list of predisposing causes of disease, it is not strange that that segment of the body receiving the brunt of the attack or that organ or group of tissues most concerned in repelling a chemical poison or bacterial invasion should produce palpable signs of imbalance in its somatically associated tissues.

This structural imbalance was recognized by osteopaths as a "lesion" and given precedence over everything else as a cause of disease. Let us define this "lesion." It consisted of a palpable variation in the position of a vertebra or rib, tenderness in the surrounding fibrous and muscular tissue, decrease of motion in the arthrodial articulations between the articular processes, and functional disturbance in tissues innervated by divisions of the spinal nerve supplying the tender spinal tissues. This segmental association of lesion phenomena has formed the groundwork of all osteopathic diagnosis and practice. No vertebral deviation was considered an active lesion without the association of hyperesthesia and distinctly disturbed function in the area of distribution of the nerve trunk from the same spinal segment. This was the primary step of osteopathy into the arena of practical therapeutics. Manipulation was addressed wholly toward securing alignment, believing the rest would care for itself when structural imbalance was eliminated. This was the narrow view of fifteen years ago. Granting that it was a very narrow view it nevertheless led to experiences and studies of great interest and usefulness.

The universality of these structural lesions is not astonishing in the light

of our later knowledge of adaptive reflexes and the natural history of disease. They appear usually involving three or four segments because skin areas, muscles and organs are not limited to one spinal segment for their innervation.

Reed and Pottenger in their respective specialties have called attention to contraction of spinal muscles in the areas of digestive and respiratory nervous control. The earliest osteopaths knew the associated distribution of the various spinal nerves so well that they used the slightly changed spinal joint, which they call a "subluxation," as a palpable guide to the organ or group of organs involved. Like all new ideas they had not had time nor experience enough to analyze its time relation to all associated phenomena, and hence they said the subluxation was the cause of the disease. Medical history is full of just such one-sided views. Our experimental laboratories have given us a wider view and the progressive osteopath does not delude himself with any one-sided viewpoint.

But how does all this affect his methods of manipulation? So far as technique is concerned, very little. The manipulations are positive efforts to produce balance between the opposing muscle groups controlling a joint. The normal state of the joint is balanced, therefore manipulative methods should strive to reproduce this. The changes in functional activity in the joint and its associated structures, together with the segmentally associated organs, following adjustment by osteopathic manipulation, offer a field of investigation of intense interest.

The distinctive thing, to my mind, about osteopathy is the fact that it approaches problems of disease on the mechanical side, i. e., in diagnosis and therapeutics the first impressions are those imposed by structural change. For example: In diagnosis, the first

information is usually secured by palpation of the vertebral and paravertebral areas. The characteristic development and alignment of the vertebrae is examined. Alignment and spacing are subject to variation because the spinal muscles control. Therefore if structural change is noted the muscles which normally will produce it are examined. If the muscles are contracted: why? Muscular contraction is expressing some form of a protective reflex. What initiated it? Is the stimulus affecting extero-, intero- or proprioceptive nerves and in what segment or segments? This is certainly a complex problem and calls for much correlated knowledge.

The mal-alignment, "lesion," "subluxation," whichever term one chooses to use, indicates which spinal segment or segments is bearing the brunt of the effort to protect the organism. Knowing the segment one knows the nerve trunks involved, and hence the somatic and splanchnic tissues innervated by them. The examination follows by all known physical methods to determine the state of the somatic and splanchnic tissues. No known method of value is left unused by the osteopath any more than by the representative of any other school of medicine who conscientiously and systematically searches for causes of disease. The "spinal lesion" is the outcropping ledge. The lesion is primary in cases of trauma, and hence its correction is good surgical practice. The associated splanchnic and somatic symptoms are secondary to the irritation of proprioceptive nerves terminating in the injured tissues. Spinal injuries are not infrequent. If the lesion is secondary to extero- and interoceptive stimuli, correction of it does not remove the cause but does certainly lessen the severity and extent of the vicious cycle of reflexes so well recognized in nearly all forms of disease.

Bacterial and food poisons mirror themselves in characteristic group le-

sions in the vertebral and paravertebral regions. There are the lesions which show the effort being made by a special organ, such as the kidney, to eliminate the poison. Just as we note the drafting of one tissue after another in the effort of the body to defend its life we can perceive the spinal area mirror this collective effort.

Medicine in general has not yet awakened to a knowledge of palpation applied along these lines.

The lesion is the tangible expression of structural disturbance and the osteopaths of earlier years attempted correction irrespective of any analysis of its time relations, i. e., whether primary or secondary. Our brilliant results were of course in cases of primary lesions, but a moderate success attends similar treatment of most secondary lesions because it has in it the elements of stimulation which calls out recuperative reactions in the body.

Manipulation is capable of answering many therapeutic needs. Chief among these is hand surgery. Its use in orthopedics is well established. Pressure, leverage, thrust, torsion and concussion can be used to great advantage. Sedation or stimulation can be secured in

segmental areas and thus secure influence over visceral activity.

The thing about osteopathy which shocks the exponents of drug therapies most is the fact that we seek to secure effects by manipulation which they sought by the use of drugs. Probably manipulation is not so frequently used where contra-indicated as are drugs. This over-reaching of the exponents of a therapy is undoubtedly the business side of professional life, and so long as this aspect rules there is little chance of systems of therapy being altogether honest. Under present conditions methods of treatment compete for popular recognition and patronage. Many things make this imperative. For instance, the conservatism and self-satisfaction of the exponents of an established method, like other forms of property values, object to voluntary depreciation. All recognition has to be wrung from the established order by competition of a kind to secure a share of its receipts.

I do not claim osteopathic manipulations to be cure-alls, but I do claim they have a much larger field of usefulness than the average physician is willing to admit. But it is useless for any of us to claim or counter-claim about therapies. That will live and endure which answers human needs the best.

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## PREVENTION OF MEASLES.\*

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BY L. M. POWERS, M.D., LOS ANGELES, CAL., HEALTH OFFICER, CITY OF LOS ANGELES.

I do not want to occupy your time and attention by giving the history, symptomatology, etiology, diagnosis, prognosis and treatment of measles, but to call your attention to and elicit a free discussion of a subject of much concern to you as health officers and

practitioners in this community, and that is the prevention of measles.

To know how best to control or prevent a disease we must know the character of the cause, or learn by observation of its clinical course. Measles is transmitted during the catarrhal stage

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\*Read before the Southern California Medical Society at Redlands, Cal., May 5, 1919.



four or five days before the eruption appears. During the eruption, and as long as the catarrhal and desquamative conditions may exist, it is transmitted mostly by contact or association; the best authorities also claiming transmission by clothing or fomites. It is likely the points of entrance are the mucous membrane, for here are shown the first manifestations of the disease in the form of a catarrhal condition of the nose, eyes and bronchii. Therefore, a logical conclusion is that the disease is more or less air borne.

There has never been any standard established of conditions of morbidity or mortality of diseases by scientific bodies or practical authorities based on science to govern a people in declaring that a certain disease shall be prevented by means of interference with personal liberty or the free use of property, nor is action arbitrarily taken and carried to success by public authority in this direction unless the same is supported by public sentiment which has been aroused by experience, observation and the instinct of self-preservation.

The germ that causes measles is unknown to us, consequently we do not know the character of the virus producing this disease as well as we do the causes in the diseases that have interested scientists most. We are unable to use any vaccine or render any person immune to this disease in any way or by any means at present discovered. So little interested have been the investigators that we seldom hear of any experimentations being made into the cause of this disease; hence our limited knowledge of its causation. The immunization and other prophylaxes for the prevention of this disease failing us, isolation or quarantine is the only means left to us; hence the state has passed a law requiring the quaran-

tine regulation of measles. In support of this law its advocates assert that it is a highly contagious disease and can be prevented by the enforcement of systematic quarantine regulations; that the mortality in complicated cases is considerable, and in some epidemics the virulence of the disease is very severe, the malignancy often depending upon the frequency of broncho-pneumonia and other complications; that the disease uncontrolled, though mild in form, may attack many children when they are ill-prepared to withstand any form of disease, and that the sequelae of measles, such as otitis, tuberculosis, etc., are often very serious.

Welch and Schamberg say: "The average mortality of measles is from 4 to 6 per cent. The disease may in some epidemics not exceed 1 or 2 per cent., while in others they may reach the murderous figures of 20 or 30 per cent.

"In 1856, in Lippe, Hungary, a malignant epidemic prevailed, destroying the lives of 50 per cent. of those attacked. Measles again occurred in this locality thirteen years later, with a mortality of 3 per cent."

You may be interested to know the number of cases of measles reported to the health office of the city of Los Angeles during the last ten months.

July, 1909 .....	34
August .....	23
September .....	30
October .....	64
November .....	124
December .....	322
January, 1910 .....	2186
February .....	3051
March .....	2022
April .....	470
Total .....	8326

## DEATHS FROM MEASLES AND OTHER DISEASES.

1909.		Contributory:		
July,	1	Measles	Pneumonia .....	1
Sept.,	2	"	Pneumonia .....	2
Oct.,	4	"	Pneumonia .....	2
			Enteritis .....	1
Nov.,	1	"	Pneumonia .....	1
Dec.,	1	"	Pneumonia .....	1
1910.				
Jan.,	6	"	Gastro-enteritis ....	1
			Pneumonia .....	1
			Tub.-enteritis ....	1
			Gastro-enteritis ..	1
			(chronic) .....	1
			Broncho-pneumonia.	1
			Capillary bronchitis	1
			and cardiac dilata-	1
			tion .....	1
Feb.,	3	"	Paralysis .....	1
	2	"	Pneumonia .....	2
	1	"	Capillary bronchitis	1
March,	3	"	Broncho-pneumonia	2
	1	"	Double pneumonia..	1
	1	"	Lobar pneumonia...	1
	1	"	Cerebral meningitis.	1
	1	"	Inflammation brain.	1
	4	"	Pneumonia .....	4
	4	"	Broncho-pneumonia.	4
April,	1	"	Broncho-pneumonia	1
	1	"	Meningitis .....	1
			Tub.-meningitis ....	1
			Pneumonia .....	1
38		Total .....		35

On the other hand there are those who do not believe that conditions justify the enforcement of quarantine regulations in measles. The incubation, or catarrhal stage, is contagious, and passes before the disease can be recognized, consequently many exposures are made

and the disease disseminated before a justifiable isolation or quarantine can be made. The necessity of house-to-house inspection to learn where the disease exists, for not more than 5 per cent. of the cases are attended by physicians and quarantine regulations cause many cases to be concealed in order to avoid having a residence placarded or a sick relative isolated. The popular idea is that physicians only are amenable to laws requiring the reporting of cases regulated by quarantine, and, according to the construction made by the courts, this opinion seems to be sustained on the ground that the layman is not an expert, hence cannot be held responsible for not reporting the existence of a disease that he does not know. The length of time required for isolating cases is seldom enforced because the period of contagion after the eruption disappears no doubt remains as long as the catarrhal condition may exist. The feeling of unjust regulations breeds a refractory or rebellious sentiment and contempt for all efforts to control a disease so little feared, and tends to vitiate the control of other and more important diseases, such as scarlet fever, diphtheria, etc.

## OCULAR INJURIES, WITH SPECIAL REFERENCE TO SYMPATHETIC OPHTHALMIA.\*

BY B. F. CHURCH, M.D., REDLANDS, CALIFORNIA.

When we consider the prominent and exposed position of the eyes, they would seemingly receive external injuries much more often than is the case. Their escape is due to the admirable provision nature has made for their protection.

The anatomical formation of the eyes and of their surrounding structures, appear to be specially designed to secure the greatest safety. Reposing up-

on a cushion of fat, in a bony cavity with over-hanging frontal border, the projection of the nose and malar eminence, together with the eyebrows and eyelashes, its rotating movement and power for self-irrigation with a sterile solution, the tears, all afford a most admirable protection to the delicate structures of this organ. No matter how trivial an eye injury may seem,

\*Read before the Southern California Medical Society, Redlands, May 5, 1910.

there is always a risk of dangerous after-results.

For the most part, the fate of an injured eye depends upon the treatment first received. A great responsibility rests upon the surgeon, in many of these cases, by the knowledge that sympathetic inflammation may supervene in the fellow eye and result in total blindness. The first and most important consideration in all traumatic eye injuries, when there is a solution of continuity, is the prevention of sepsis.

On account of the delicate tissues involved, which preclude the use of powerful antiseptics, this is not always possible. In fact it is practically impossible to sterilize the whole conjunctival membrane and keep it so for any length of time. Wounds of the globe, however, heal perfectly in the presence of micro-organisms normally there. Infection from without demand our greatest attention. After thoroughly cleansing with normal salt, or a saturated solution of boracic acid, the first remedial measure, with few exceptions, outside of surgical, should be the instillation of atropine, four grains to the ounce. This places the iris and ciliary body at rest and greatly lessens the tendency to intra-ocular inflammatory reaction.

Iridocyclitis, following traumatism, is a very serious condition and frequently results disastrously, not only to the injured eye but to the fellow eye also. The most frequent, if not sole cause of traumatic iridocyclitis, is infection.

The spectral horror of possible blindness from sympathetic ophthalmitis, following some forms of eye traumatism, forces a grave responsibility upon the surgeon. This disease is rare, yet it is manifest sufficiently often and at such unexpected times as to demand our most careful consideration in all injuries of the eye, when of any magnitude.

Experience and observation taught the older surgeons that certain injuries

to an eye are fraught with danger to the fellow eye of a violent inflammation, consisting usually of a plastic iridocyclitis which is almost unamenable to treatment and usually ends in blindness.

We know very little more about it today. While it is generally conceded that sympathetic ophthalmia is due to the transference of bacteria or their toxins from the injured eye to the one secondarily affected, the kind, or route they pursue, has not been demonstrated. There is still a wide difference of opinion as to whether the infection travels by way of the blood vessels or along the nerves, optic or ciliary. Results of experiments upon animals have failed to clear up the mysteries of this disease as it cannot be produced in them.

The only positive guide to prognosis is the clinical picture of a plastic, non-suppurating inflammation, alike in the injured and secondarily involved eye. As treatment at this stage is, as a rule, futile, it therefore is essentially preventive. The insidious nature of this disease is a prominent characteristic.

Occasionally it is ushered in by severe pain and other symptoms of acute inflammation. Usually, however, it develops in a manner so treacherous that serious results are not anticipated until the disease is thoroughly established. It may make its appearance at any age, but is more frequent in the young.

The length of time which intervenes between the injury and the onset of the disease varies greatly. It is rarely less than three weeks and may develop as late as thirty or forty years. In the latter case it follows a fresh inflammation or degenerative changes in the exciting eye.

In recent traumatisms we may feel reasonably safe after three or four weeks have passed, provided the eye has healed, is free from pain and has no



evidence of irido-cyclitis. Enucleation of the injured eye, if performed immediately, is a prevention, but not a cure of the disease. Our difficulties in deciding whether to enucleate do not cease if we wait until the disease is established. Indeed, it often occurs that when the vision of the eye receiving the accident has not been entirely destroyed, and sympathetic ophthalmia develops in the other, blindness ensues in this eye while the injured or exciting eye retains useful vision. Sympathetic ophthalmia may develop several weeks after the exciting eye has been removed.

Sympathetic irritation, as differentiated from sympathetic inflammation, is characterized by photophobia, lacrimation, or pain and the absence of objective signs of inflammation. This may or may not be a forerunner of sympathetic ophthalmitis.

This affection is doubtless a simple reflex through the ciliary nerves. It is quickly and permanently relieved by enucleating the offending eye.

The tendency of today is toward conservatism in the removal of injured eyes. Statistics show that sympathetic ophthalmia is much less frequent now than formerly. This is accounted for by prompt and modern treatment afforded this class of injuries.

The following rules and deductions about voice the present collective ex-

perience and observation upon this subject.

1. The pathology, or rather the causative entity, and how it acts, to produce what is understood as sympathetic ophthalmia, is obscure.

2. Any local cause that produces violent irido-cyclitis in an eye more or less endangers the fellow eye to the same character of disease through sympathy.

3. Penetrating wounds, involving the ciliary body, and those in which a foreign body remains in the eyeball are conditions especially to be feared.

4. Eyes blind from suppurative processes have little tendency to cause sympathetic ophthalmia.

5. Sympathetic irritation may be considered a benign affection, and has little tendency to pass into inflammation. It may develop many years after injury to the fellow eye and is quickly and permanently relieved by enucleating the offending organ.

6. Sympathetic inflammation, as a rule, resists all treatment. Our greatest hope lies in the preventive measure of enucleating the eye which is likely to cause it and that procedure is not always successful. There is no time limit to the development of the disease, though that of greatest danger is three weeks to five months after injury to the fellow eye.

## IS TONSILLOTOMY A PROPER OPERATION?\*

BY W. H. ROBERTS, M.D., PASADENA, CALIFORNIA.

By tonsillotomy is meant the partial removal of diseased tonsils.

For many years tonsillotomy has been one of the most popular and most frequently performed, of all throat operations.

Every physician on receiving his diploma has promptly secured one of

the numerous varieties of automatic tonsillotomes, and considered himself just as capable of snipping tonsils as his older colleagues.

There are, roughly speaking, three indications for the removal of tonsils:

First: Hypertrophy, interfering with breathing, swallowing or phonation.

\*Read before the Southern California Medical Society, May 4, 1910.

Second: Limited local infections resulting in tonsillar or peri-tonsillar inflammation and abscesses with, or without, cervical adenitis.

Third: Systemic infections, as, for instance, rheumatism, for which the tonsils are now considered ports of entry for the invading organisms.

If we examine microscopically a thoroughly removed tonsil, we will observe opening on the throat side of the gland from twelve to twenty crypts, nearly all of which extend to the fibrous capsule covering the back of the tonsil. These crypts are frequently filled with caseous masses, and always contain bacteria. If removal of the tonsils is indicated, removal of all these crypts is likewise indicated, and they cannot be, unless the tonsil is carefully dissected and taken out in its entirety.

In the clipping operation as usually performed, there is no preliminary loosening of the gland from the anterior and posterior pillars, and the structures forming the supra-tonsillar fossa. The automatic knife cuts off that portion of the gland which projects beyond the pillars, and not infrequently removes portions of the pillars too. In a small percentage of the cases of the hypertrophied variety which project beyond the pillars into the fauces, nearly all of the gland can be thus removed, but in the vast majority of the cases the base of the tonsil is left, and in it the ends of the crypts above mentioned. The inflammation resulting from the operation causes firm adhesions to form between the stump of the tonsil and the pillars, and greatly increases the difficulty of the subsequent dissection. Not infrequently the opening of some of the crypts at the surface of the cut tonsil becomes obliterated, producing closed pockets, the sites of future abscesses.

The tonsillotome cannot be used at all in many of the cases demanding removal, namely—the diseased submerged glands which project but little, or not

at all, beyond the pillars; hence, there is here a large class of patients who are not operated at all by those who do the tonsillotomy operation.

Several years ago a famous African explorer told me of the unique method some of the savage tribes employ for the removal of diseased tonsils—namely, a thong which they slip around and behind the gland, tightening it until the gland pops out: thus securing a complete removal. Surely even the surgeons of civilization can learn something from the medicine men of Africa.

Last month at the California State Medical Society at Sacramento, a general practitioner read a paper severely criticising the specialists who were doing tonsillotomies, and cited numerous instances in which the patients had not only *not* been benefited, but made worse, by partial removal of the tonsils. Proper tonsillectomies restored these patients to normal health.

After seeing the poor results I obtained in the early years of the practice of my specialty, I gave up doing tonsillotomies, and now for some seven years have been doing the complete removal after thorough dissection. Many of my early tonsillectomies were not perfectly satisfactory, but this was because of faulty technique.

Some of my most difficult operations have been on patients previously operated by the tonsillotome, on whom I have had to work a long time to free the tonsil stumps from the mass of adhesions holding them down, and even burying them.

Better far no operation at all, than one which not only does not cure the condition operated for, but aggravates it.

In my opinion tonsillotomy should not even be dignified by the term operation. In that it fails of accomplishing that for which it was intended, it should be regarded as obsolete, and relegated to that museum where medical and surgical antiquities are kept.

## A SIMPLE DIFFERENTIAL STAIN FOR DIPHTHERIA BACILLI.

BY D. C. RAGLAND, M.D., LOS ANGELES, CALIFORNIA.

The subject of Diphtheria in mankind is a comparatively old one and many of us are satisfied with the diagnosis of this disease by the cultural method. However, even with the present status of laboratory diagnosis, provided for by both state and city, the practitioner in the small town and country is seriously handicapped by the length of time consumed in the transportation of his specimen or culture to the laboratory, and also again, by the length of time consumed in obtaining a growth of the organism, at least eight hours being necessary. With such a condition in mind, I have devised the following stain intended especially for the "small town" physician who has a microscope but no incubator. Many of us who are not color blind are however unable to distinguish between shades of the same color, and this we must be able to do if we are to recognize the Diphtheria Bacilli when stained by the ordinary Loeffler's Alkaline Blue or Borax Blue Stains. Neisser's acid Blue stain, with a counter stain of Bismark brown, has this disadvantage, i. e., the great tendency of over staining by the Brown.

The Klebs-Loeffler, or Diphtheria Bacillus, is recognized by its cultural and morphological characteristics, it being only differentiated from a kindred organism, i. e., the pseudo Diphtheria Bacillus, or Bacillus Xerosis, by animal inoculation; the latter organism differing only in this one characteristic—it is non-pathogenic. The most striking morphological feature of the fully grown Diphtheria Bacillus is its polar granules, these being in either pole of the Bacillus. Such forms are constantly found in the throat of those suffering from Diphtheria. This stain then is especially adapted for staining smears made direct from the patient's throat.

The stain is made up of Methylene Blue and Eosin and the adult Diphtheria Bacillus is quickly recognized because the Polar Granules are stained a deep blue, while the remaining portion of the Bacillus takes the Eosin or pink stain, making thereby a decided contrast. The stain is composed of three (3) solutions, the formula of which and technic for using are as follows:

### Solution "A":

Methylene Blue saturated aqueous solution, .....10 parts  
10% Citric Acid solution, ..10 parts  
Aq. Dist., .....80 parts

### Solution "B":

10% Aqueous Sol. Citric Acid ..... 5 parts  
Methyl Alcohol (Merck's Highest Purity) .....22 parts  
Dist. Water, .....73 parts

### Solution "C":

Eosin (Grublers Yellow Water Sol.) saturated aqueous solution, .....1 part  
Aqua Distillata, .....199 parts

The technic is as follows:

1. Make thin smears from throat especially from the margin of membrane or suspicious patch.

2. Dry in air.

3. Fix in flame (gas or alcohol).

4. Add sufficient Blue Stain "A" to cover smear and allow to act 10 to 15 seconds, then shake it off but do not wash. Now apply:

Solution "B" and allow to act for from 10 to 15 seconds. This decolorizes everything but the polar granules. Now shake this off but do not wash.

Lastly add Solution "C", and allow it to act for from 10 to 15 seconds, then shake off excess of stain and blot dry with filter or blotting paper, mount in Canada Balsam or cedar oil and examine.



Diphtheria Bacilli show as pink rods with a dark blue granule in either pole. All other bacilli and cocci are stained pink.

This stain has been controlled by the culture method of laboratory diagnosis in over 1000 cases and the following conclusions can be drawn.

1. The length of time required for laboratory diagnosis is reduced from several hours to a few minutes.

2. The stain differentiates Diphtheria Bacilli from all other pathogenic bacilli.

3. If Diphtheria Bacilli are found by this stain, anti-diphtheritic serum is indicated immediately, without waiting for culture.

4. If no such Bacilli are found, we are justified in waiting for the culture.

I desire to thank Drs. Stanley P. Black, R. B. Durfee and Paul E. Simonds for the kindly interest they have taken in this stain and for their very encouraging report upon its use.

401 Delta Building.

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Never forget to caution the nurse or attendant on the sick regarding the danger of the hot water bag or bottle. Very harmful scaldings, some resulting even in death, have been recorded from loosened cork, or defective water bag. Especially so when applied to infants. Remember also that an unconscious or semi-comatose patient will be burned severely by hot water bags or bottles at a temperature that would have no effect on a wide-awake or even normally sleeping person.

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In cholera morbus and cholera infantum, and in all diarrheal disturbances produced by fermentation, sulpho-carbolate of zinc is highly recommended. When pain accompanies the above-named diseases, codeine will relieve the colic. Sulpho-carbolate of zinc and codeine in one-third grain doses, given every half hour, will soon give relief.

In differentiating between enlarged prostate and calculus, remember that in calculus there is pain connected with the urinary act; there is hematuria; there is no failure in the force of the stream and the frequency of urination is greater during the day time and is increased by motion. In enlarged prostate there is no pain with the urinary act unless where the case has become so chronic that the bladder has become involved and the foul urine scalds the inflamed bladder neck and urethra in its passage; the force of the stream is weakened and variable, and the frequency of urination is greater during the night.

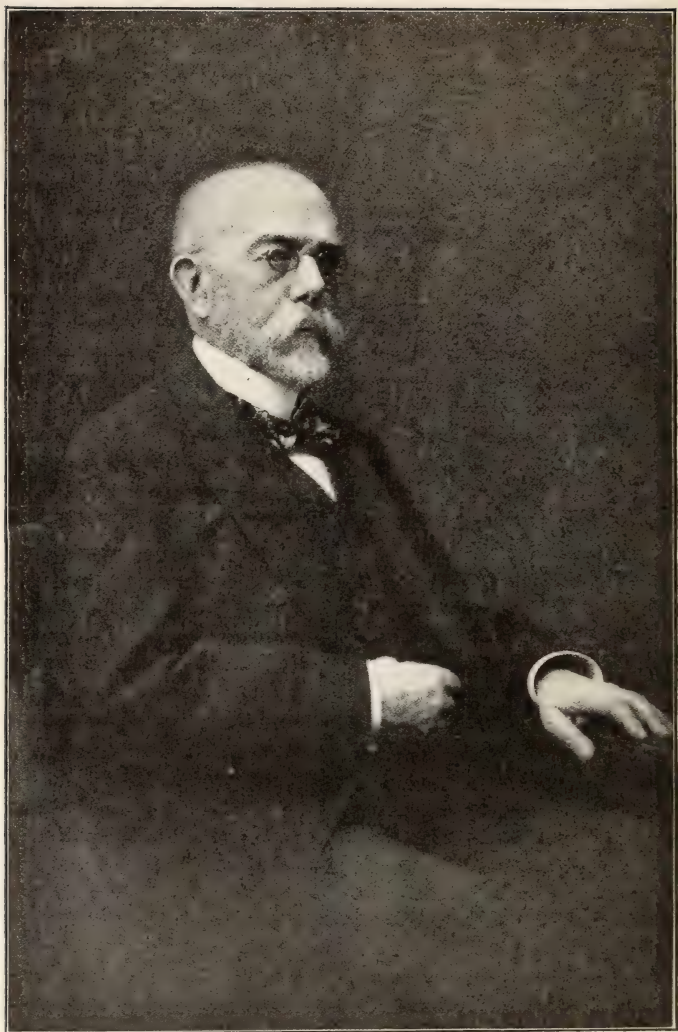
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Letters and mail-bags are frequent carriers of tuberculosis. According to testimony recently given before the postal commissioner of the British Empire, during the last twenty years, 80 per cent of the deaths among letter sorters had been due to consumption, contracted by the men after they had entered the service.

Dr. Bertillon, the eminent French vital statistician, has shown that tuberculosis is twice as prevalent among the retail liquor dealers of France as among other shopkeepers. He attributes it to the fact that the alcohol which they handle and use all day long weakens their bodies and thus renders them more susceptible to the disease germ.

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The advantage of the rectal administration of diphtheria antitoxine have been urged. The mucous membrane of the rectum readily absorbs the serum. The patient lies on the left side on a couch, and a catheter is passed as far as possible into the rectum; to the catheter is attached the barrel of a glass urethral syringe, into which the serum is poured; as a rule gravity is sufficient, but if the fluid does not flow readily the piston can be used in the ordinary way.



ROBERT KOCH, M.D., 1843-1910.

Benefactor of the Human Race.  
Co-Founder with Pasteur, of the Science  
of Bacteriology.

Born December 11, 1843, in Klausthal,  
Prussia.

Received degree of M.D., University of  
Goettingen, 1866.

Country Practitioner in Rackwitz and  
Wollstein, 1866-1888.

**Published** his memorable work on  
Anthrax, 1876.

Classical Investigations on Traumatic  
Infectious Diseases, 1878.

Introduced Abbe's condenser, oil immer-  
sion and aniline dyes, photo-micrography,  
new cultural methods, plate method  
technic.

Announcement of discovery of Bacillus  
Tuberculosis, March 24, 1882.

Discovery of Comma Bacillus of Cholera,  
1883, and Important Observations on Koch-

Weeks Bacillus of Egyptian Conjunctivitis,  
and on Amoebic Dysentery.

Granted 100,000 marks by German  
Government in 1884.

Appointed professor in University of  
Berlin, 1885.

Announced discovery of tuberculin, as  
important diagnostic aid and as curative  
agent in beginning tuberculosis, in 1890.

Appointed director of the Institute for  
Infectious Diseases in Berlin, 1891.

In subsequent years, made most im-  
portant discoveries and observations on  
nature of Rinderpest, Bubonic Plague,  
Surra, Texas Fever, Malaria, Relation of  
Human and Bovine Tuberculosis, Typhoid  
Fever, Sleeping Sickness.

Received the Noble Prize in Medicine,  
1905.

Died at the age of 66, at Baden-Baden,  
Germany, May 28, 1910.

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A MEDICAL, CLIMATOLOGICAL AND SOCIOLOGICAL MONTHLY MAGAZINE.  
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## EDITORIAL

### ROBERT KOCH, 1843-1910.

Dr. Robert Koch is dead.

This great benefactor of his race has  
passed into the world beyond.

To the photograph in this PRACTITIONER, taken from Knopf's "Tuberculosis," we have added a brief summary of some of his works.

How feeble are words to express  
what this man has done for the world!

How his researches helped give us  
the new science of Bacteriology, and how  
his many discoveries and investigations  
gave a new insight into the causation  
and nature of many infectious diseases;  
and how through the knowledge so ac-  
quired, the health and lives of thousands  
and thousands of people are now  
conserved!

What a wonderful career has been  
his—for to him was it given to present  
some of the world's classical researches  
in scientific medicine, and that, too,

while he was only a country practi-  
tioner in a small town in Germany.

How immense his capacity to work,  
how thorough his methods, how un-  
assuming his announcements, how great  
his modesty, how far-reaching the re-  
sults of his life's activities!

What an inspiration to the medical  
profession and to the world to have  
had in its midst such a man.

How grateful we all should be that  
it was permitted him to live!

He had earned life's greatest rewards  
in the knowledge of work well done.

May his soul rest in peace! K.

### THE AMERICAN MEDICAL AS- SOCIATION TO MEET IN LOS ANGELES IN JUNE, 1911.

The caption of this paragraph tells  
quite the biggest piece of medical news  
which it has been the PRACTITIONER's lot  
to chronicle for some time.



The press dispatches of June 9th told the story thus:

"ST. LOUIS, June 9.—The insurgents were defeated at the annual election of officers of the American Medical Association today, when Dr. John B. Murphy of Chicago was chosen president for the term beginning in 1911.

"George H. Simmons, also of Chicago, who last Tuesday resigned, was again elected secretary.

*"Los Angeles was selected for the next convention, in 1911.*

"At the election of officers today Dr. John B. Murphy of Chicago was elected president; Dr. E. E. Montgomery, Philadelphia, first vice-president; Dr. R. C. Caffey, Portland, Oregon, second vice-president; Dr. W. C. Moore, St. Louis, third vice-president; Dr. L. E. Johnson, Washington, D. C., fourth vice-president. Dr. Frank Billings of Chicago was re-elected treasurer, and Dr. George H. Simmons of Chicago, secretary."

The above item in italics is splendid news to Los Angeles, but it means much work.

Los Angeles was fortunate, probably, in having Dr. H. Bert. Ellis, long a California member of the A.M.A. House of Delegates, to present its claims. In his position as Chairman of the Committee of Credentials, which duty he has performed for several years, Dr. Ellis probably had an excellent chance to meet every delegate personally and so be in a position to present the advantages of Los Angeles to best advantage.

The victory was all the more notable because Buffalo, with the backing of the East, came prepared to wage a strong battle for the next convention.

The vote stood 61 to 58 in favor of Los Angeles. Buffalo came to the Convention with \$100,000 pledged for

entertainment and lost out. It certainly behooves Los Angeles, therefore, to make good.

It will shortly be up to the profession of Southern California to get together and lay broad plans for a meeting that shall be memorable in the annals of the A.M.A.

We can make it so by a strong pull and by a pull all-together; and its reward, in giving the people of the Great Southwest a somewhat true insight as to what our National Association really stands for will be ample compensation for our individual and collective efforts in making the meeting a success.

K.

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#### DR. JOSEPH KURTZ AND DR. GEORGE W. LASHER HON- ORED IN A NOTABLE MANNER.

The graduates of the College of Medicine and the faculty of the Los Angeles Department, College of Medicine of the University of California, on the evening of June 2, tendered to Dr. Joseph Kurtz and Dr. George W. Lasher a testimonial dinner, in honor of their long service as teachers in the College of Medicine.

With the close of the scholastic year on June 2, these gentlemen each completed a quarter of a century's service as medical teachers. The evening's program is presented elsewhere in this PRACTITIONER.

These two colleagues were present at the first faculty meeting in 1885, and have been in harness ever since.

They have been loyal and devoted members of the faculty, and have ever

served quietly, but most efficiently, in their respective chairs of surgery.

Dr. Joseph Kurtz becomes Emeritus Professor of Orthopedic Surgery and Dr. George W. Lasher becomes Emeritus Professor of the Principles and Practice of Surgery.

The dinner on June 2 was notable not only in the large attendance of alumni who turned out to do honor to their old teachers, but especially in the warmth of greeting which they gave to these veterans of the "Old Guard." So contagious was the spirit in evidence that even Dr. Lasher performed the unheard of feat of an after-dinner speech.

His colleague, Dr. Kurtz, responded in most happy strain for himself and Dr. Lasher, and it was well after the midnight hour when the banqueters dispersed, happy, one and all, at having been participants in this splendid tribute.

K.

### THE LATE KING.

King Edward VII died May 6, 1910. The interest in his death is so universal that we present as a frontispiece of this issue of the SOUTHERN CALIFORNIA PRACTITIONER pictures of his attending physicians reproduced from the *Illustrated London News*.

The *British Medical Journal* of May 16 says:

For years the king suffered from emphysema and a tendency more or less acute to bronchitis, with the usual symptoms of a distressing, ineffective cough and difficulty of breathing. There was crepitation at the bases of both lungs, indicating a chronic impediment to the free passage of air in the smaller bronchial tubes. He was subject to at-

tacks of laryngitis, which produced slight spasms of the vocal chords, but except for some inflammatory thickening at the hinder part of the glottis and chronic catarrh of the throat, there was no trace of disease in the upper air passages.

The king, in short, had what is known as smoker's throat. This and the congestion and thickening due to this cause, combined with the loss of elasticity in the lungs, made it increasingly difficult for him to clear his chest. The strain thrown upon the heart by the obstruction to the passage of blood through the lungs, caused by the collection of secretion in the bronchial tubes, had its natural sequel in the dilation of the right ventricle, and the natural cause of death was heart failure due to increasing difficulty in the pulmonary circulation.

In short, it was a case of a type to be seen every day in thousands of elderly persons. The cause of death in such cases is purely mechanical, the overlain heart being stopped by the increasing resistance in the lungs. Could the king have been induced to spare himself more he probably would have lived many years longer. He had, indeed, suffered from glycosuria of a varying degree for a long time, but this does not, so far as can be judged, tend to shorten life.

Another condition which must have caused considerable discussion at times was a certain weakness in the abdominal wall at the site of the operation for appendicitis which was performed in 1902.

The hurried journey from the Continent, so short a time before his fatal illness, would have taxed his strength, even had he been in perfect health. Suffering as he was from the effects of a recent illness, the king might fairly have been excused from facing the risk of returning from the south to the cloudy skies, cold winds and showers of the treacherous English spring. The

result might almost have been foretold. Though the end came with startling suddenness to his people, it was clear to those about him that the end was imminent before any cause for alarm spread outside the palace. The examination on Thursday revealed the real nature of the situation to those who could read between the lines.

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### SIMPLER REQUIREMENTS FOR THE EDUCATION OF NURSES.

In an editorial with the above title the *New York Medical Journal* makes a plea for lowering the standard of admission qualifications for trained nurses. The basis for the plea is the fact that some young women of relatively superior social and general qualifications do not practice their professions after graduation, and that there is so great a public need for less superior nurses that the places of the superior should be surrendered to inferior candidates.

One occasionally hears surprise expressed because the training given in the training schools for nurses does not make fine women of all graduates. Such objectors forget that the finest women are the finest nurses, and that the qualifications and fitness for the work of nurses depends more upon influences in their lives before entering the schools than it does upon the mere technical training while in them.

It is of course undesirable that women who have no intention of working as trained nurses should have the privileges of the training schools, provided their presence there excludes suitable women who do intend to follow

the calling after graduation. But it is a mistaken idea to propose to lower the standards of the training schools or to exclude women from such schools simply because their social and general qualifications are higher than the average.

The fact that there is an increasing demand for a better grade of nurses below that of the graduates of the schools is a good sign, and complimentary to the schools, but it would be a retrograde movement to try to meet such a demand through a lowering of the standards of the schools in any way, and retrograde movements are rarely right.

E. W.

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### THE CIVIC SPIRIT.

The editor of this journal was recently invited to speak at the twenty-second annual banquet of the Pasadena Board of Trade. There were four hundred and fifty representative citizens of Pasadena at the table.

We were delighted to see a large number of the Pasadena physicians present. There were Fitch C. E. Mattison, Z. T. Malaby, A. T. Newcomb, Solon Briggs, W. E. Hibbard and others whom we do not at this minute recall. It is encouraging to see the members of our profession thus taking an active interest in the affairs of their municipality. It was an interesting and instructive evening.

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### CLASS OF 1910 LOS ANGELES MEDICAL DEPARTMENT OF THE STATE UNIVERSITY.

Rarely has the College of Medicine had a commencement with a more keeping and beautiful setting than that



which fell to its lot on Thursday morning, June 2.

In compliance with the feeling of President Wheeler of the State University—who could not be present because he was again on his way to Germany, to take up his duties as this year's Roosevelt professor at the University of Berlin—it was decided to hold the exercises at the College, and the Barlow Medical Library building was selected.

The names of the graduates and the program of exercises for historical reasons, is appended:

Class of 1910: Charlotte Marie Brown, Mark Gorman Gates, Thomas Elmer Grubbs, Lyle Gillett McNiele, Olga Murray, Jean Margaret Roberts, Jessie Wilhelm Stenger, Ora Isaiah Tower, John William Utter.

#### COMMENCEMENT PROGRAM.

Music—Selected.

Remarks—Dr. J. P. Widney, first Dean of the College of Medicine.

Address—"Knights Errant," Dr. James A. B. Scherer, President Throop Polytechnic Institute.

Music—Selected.

Reward of the Senior and Sophomore Prizes for Scholarship.

The Barlow Senior Prize of \$100 was awarded to Mr. Mark G. Gates, with honorable mention to Mrs. Olga Murray.

The Barlow Sophomore Prize of \$50 was awarded to Miss M. E. Bettin, with honorable mention to Mr. E. S. Fish.

Presentation of Graduates—Dr. W. Jarvis Barlow, Dean Los Angeles Department.

Awarding of Degrees—Hon. J. W. McKinley, Regent of the University of California.

Benediction.

## IS CANCER OF THE STOMACH DUE TO ULCER?

Dr. Wm. Carpenter MacCarty of Rochester, Minnesota, has in the May issue of *Surgery, Gynecology and Obstetrics* a valuable article entitled "Pathology and Clinical Significance of Stomach Ulcer." The paper is based on two hundred and sixteen cases, fifty-eight of which are ulcers, one hundred and twenty-five ulcer and carcinoma, and thirty-three carcinoma without any good evidence of ulcer.

Dr. MacCarty says: "The question. Do ulcers become malignant as one of their sequelae, seems, from my material at least, to be answered in the affirmative. Seventy-one per cent of all our respected specimens of the stomach for carcinoma were associated with definite ulcers and sixty-eight per cent of the resected ulcers of the stomach, including the duodenal ulcer, which rarely becomes malignant, were associated with carcinoma.

"While there has been a vague feeling from the pathological standpoint that carcinoma frequently occurs upon gastric ulcer, strong pathological evidence has been wanting. The clinician has for years noticed that carcinoma of the stomach often follows a prolonged history of gastric ulcer, and has believed that such was a forerunner of malignancy. The evidence, however, was only circumstantial. The fact established allows and demands a stronger admonition to the diagnostician, who, as soon as he has diagnosed ulcer of the stomach, must consider the strong possibility of its becoming malignant. The chances of this occurrence may be read-

ily seen, as stated above, in the fact that seventy-one per cent of our resected specimens of gastric carcinoma were associated with ulcer, and that sixty-eight per cent. of our resected gastric ulcers were associated with carcinoma. It must be granted that gastric ulcers do sometimes heal with or without treatment, when seen early, or when not seen at all until autopsy, but unfortunately the early stage of ulcer cannot be so easily recognized, and when recognized at the first definite sign or symptom it is impossible to determine whether the ulcer is a small one or a large one, or whether it has been present for weeks or months without having given rise to definite symptoms or even symptoms other than slight discomfort. Many cases with ulcers do not give a history of vomiting blood. Many cases give a history of hyperacidity and do not show hyperacidity at the time of gastric analysis, and therefore absence of hyperacidity is of no value in a case which otherwise gives gastric symptoms. Lactic acid and fatty acids are not to be expected until there is a mechanical or motor obstruction, which may occur associated with a small or a large ulcer, depending upon its location. The length of the history of epigastric discomfort or distress varies within wide limits, and the case with a short history often has a more extensive lesion than one with a long history.

"The lesion occurs most often, and practically always, in early adult life or middle life. Our cases have occurred oftener in males than in females. A few give previous histories which ap-

pear to be appendicitis. This coincident, if it be a coincident, is well worth considering, however, as a possible etiological factor in view of some experimental and clinical experiences. Cannon has, by the injection of irritants into the large intestine, produced a retardation of the gastric discharge. Roger has shown that the injection of betanaphthol into the caecum produces erosions of the mucosa. Litthauer has produced ulcers, which do not heal, by the production of localized anaemia and destruction of the mucosa. Clinically, many cases of appendicitis, especially chronic appendicitis, present symptoms of gastric disturbance which predominate those in the appendix region. Such cases, after the removal of the appendix, are relieved and recover from the gastric symptoms. In these cases the stomach and duodenum present no lesion recognizable on exploration. These clinical and laboratory experiences are sufficiently striking to warrant further study and experimentation in regard to the possible production of pyloric spasm, gastric anaemia, hyperacidity, and necrosis or ulceration of the mucosa."

#### RESUME.

1. Ulcers may be single or multiple and in different degrees of extension in the same specimen.
2. After the initial destruction of the mucosa, there is definite deepening of the ulcer by necrosis.
3. This deepening is sufficiently slow to allow a dense connective tissue barrier against perforation to be formed.
4. Ulcers heal, perforate and become malignant.

5. Perversion of the glandular elements occurs in the mucosa, and the cells then invade submucosa.

6. One cannot say positively that all carcinomata of the stomach have developed on ulcer, because carcinomatous tissue in the base of an ulcer may be ulcerated primary carcinoma.

7. The length of the clinical history is no positive index of the extent of the lesion.

8. The absence of blood in the vomitus or gastric contents at the time of laboratory analysis when associated with gastric symptoms is not evidence against the presence of ulcer.

9. Clinically, with our present means of diagnosis, it is impossible to say that a gastric ulcer is not malignant.

10. The intimate relationship between irritation in the appendix or caecum and gastric disturbance may have some bearing in the etiology of ulcer.

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#### REPORT OF THE CARNEGIE FOUNDATION ON THE MEDICAL COLLEGES OF CALIFORNIA.

The daily press of June 5th contained an article on the above subject. The matter presented consisted largely of excerpts from the report to the Carnegie Foundation, which was written by Mr. Abraham Flexer, Special Investigator, and countersigned by Dr. Henry Pritchett, the President of the Foundation.

#### STATEMENT THAT CALIFORNIA HAS LOW PRELIMINARY STANDARD.

According to these excerpts, California is listed with states like Missouri and Illinois, which do not require even

a high school standard in the way of preliminary education to medicine.

Perhaps the best way to consider the article will be to take up some of the items separately.

#### REGARDING HIGH SCHOOL STANDARD OF PRELIMINARY EDUCATION.

It is true, unfortunately, as is stated in the report, that California does not require a high school standard of preliminary education from all colleges.

It has always seemed to us that if we could demand but this one thing, namely:—that no student be allowed to enter a medical college, no matter to what so-called "school of medicine" or "ism" attached, unless the said student had four years' high school education, (*this education to be determined by a Deputy Examiner appointed by the California State Board of Examiners*) that great improvement would result in medical standards to the people of California.

#### COLLEGES WITH A COLLEGIATE OR HIGH SCHOOL STANDARD.

As it is now, *Stanford University* demands a full high school education plus three years of collegiate work before it will admit the student to its medical course, giving, however, an A.B. and an M.D. in this seven-year course.

The *State University of California* demands a full high school education plus two years of collegiate work before allowing the student to enter its course for the M.D. degree.

The *University of Southern California*; the *Oakland College of Medicine*; the *College of Physicians and Surgeons of San Francisco*; the *California Eclectic College of Medicine of Los Angeles*, all



demand a high school education of four years, which is determined and passed on by a Deputy Examiner of the California State Board of Medical Examiners.

THE COMMON SCHOOL STANDARD OF PRELIMINARY EDUCATION.

The *Los Angeles College of Osteopathy*, and the *Pacific College of Osteopathy of Los Angeles*, demand only a common school education determined not by a Deputy Examiner, but by themselves.

THE NO-STANDARD-AT-ALL OF PRELIMINARY EDUCATION.

In addition to this the *Naturopaths* have the right to grant degrees and through the State Board of *Naturopaths* to certify to the right of such graduates to practice with virtually no conditions as to preliminary or professional education whatsoever.

A case in point is that of a man who last year applied to a Medical College for admission, and was refused because of lack of adequate preliminary education, and within a year he informs us that he has been granted a degree of D.N. (Doctor of Naturopathy), and has the right to practice as a naturopath in the State of California. It would be interesting to ask when the certification of the Board of *Naturopaths* will cease. At one time there were to be not more than fifty; evidently there have been many additions since that time.

*Christian Science Healers* accept the money of the realm for services rendered as practitioners of the healing art, without asking for any finite authority or medical training whatsoever.

From the above it seems there are quite a number of different standards as to preliminary education and professional courses in medicine or as to the requirements of practitioners of the healing art in California.

THE PRELIMINARY STANDARD WHICH CALIFORNIA SHOULD HAVE.

*Personally we do not think it too much to ask that the high school standard of four years of preliminary education be strictly enforced, and that this standard should be determined, not by any of the colleges themselves, but by a Deputy Examiner of the State Board of Examiners; and further that this high school standard of preliminary education should be applied to all practitioners of the healing art, be they sectarian or non-sectarian.*

The time is past when any one can contend with any degree of logic that the public health interests, or the interests of the medical profession, are best served by allowing students to enter a medical college with only a common school education.

It is equally foolish to contend that the right of an occasionally worthy medical student who has only a common school education is so great that he should be allowed to enter upon the study of medicine, when by so doing a precedent is established that allows a dozen others or more who are by no means fitted to be practitioners of the healing art, under any conditions whatever, to likewise enter a school of medicine.

This applies with equal force to Regulars, Homeopaths, Eclectics, Osteo-

paths, Naturopaths or any other practitioners of the healing art.

#### THE COMMON SCHOOL A COMMERCIAL STANDARD.

Of course from a commercial standpoint it is desirable to allow students to enter college with a common school education, because for every high school graduate who aspires to enter the medical profession there are probably one hundred or more persons with only a common school education, who have the same ambition.

These are the conditions which must be faced some day in California because the present status of medical education in our state is so inconsistent and so antagonistic to the real interests of the public that a revision of the standards is absolutely necessary.

#### PROPER EDUCATION AND TRAINING THE FUNDAMENTAL POINT.

These words are written without any feeling to "schools" or "isms."

We believe it to be a sound contention that it matters not what therapy we believe, so long as in a general way we each of us shall have had that preliminary education and that professional training which may be taken as a fair qualification for a practitioner of the healing art. If a man has been properly drilled in the fundamental medical sciences and has received adequate instruction in the principles of medicine and surgery and in the diagnosis of the diseases with which he is called upon to meet, it matters little then what particular method of treatment he follows. The presumption is that such a man will use those methods which appeal to his reason and to his experience, and that is

the most that any conscientious man can do at any time, be he an advocate of regular, homeopathic, eclectic, osteopathic or any other mode of treatment.

#### THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF CALIFORNIA AND ITS BRANCHES.

Considerable space is given in Mr. Flexner's report to the action of the State University of California in giving its first two years of medical training at Berkeley, and of allowing the students to then choose between San Francisco and Los Angeles for the work of the last two years.

The point is made that this is an unwise arrangement.

#### STANFORD UNIVERSITY'S POSITION.

Stanford University is further criticised for entering the San Francisco field, through the absorption of Cooper Medical College.

#### THESE CRITICISMS NEED THE TEST OF TIME.

It is difficult to answer these criticisms at this time. Theoretically it may be quite true that it is unwise for the State University to give medical education in the two large cities of the state, each of which has more than three hundred thousand population; and further it may perhaps have been undesirable to have had Stanford University absorb Cooper College and so continue that department at San Francisco.

However, these particular criticisms will really need the test of two or three years' time to bear out their truth and wisdom, because during the last year most earnest efforts have been made to overcome most of these defects.

ARE NOT SOME OF OUR PRESENT IDEALS  
A BIT UTOPIAN?

It has seemed to us at times that we were just a little bit off the main question in the last year or two in demanding the ultra-high requirements regarding the material and clinical equipment of a legitimate college of medicine.

Are we not getting away somewhat from the big fact that the world needs practitioners of the healing art, and that if the cost of such an education continues to go up, out of proportion to the material income which graduates should have a right to expect in private practice, that there may be little inducement to men to go into medicine, and that the profession of medicine will then be divided between a comparatively small number of very well trained practitioners and a very much larger number of poorly trained persons.

It may be that if we are too hasty in the elimination of the better schools, we will allow the poorer standard institutions to have even a fuller sway than at present.

And have we not been on somewhat of a tangent as regards the proper place of laboratory equipment and training in medical curriculum?

AMOUNT SPENT BY THE STATE UNIVERSITY.

The State University is criticised, for instance, for not spending enough money on the first two years of the medical course at Berkeley, and yet that institution spends some thirty thousand dollars a year or more on the fifty or so students in its medical course at Berkeley.

ELABORATE LABORATORY EQUIPMENT NOT  
THE ALL IN ALL.

Is it not true that in the first two

years we cannot teach much more than Anatomy, Physiology, Bacteriology and Pathology?

Anatomy certainly can be taught without a vast deal of expensive equipment, and taught amazingly well, provided the student and instructor are both fitted for their respective tasks and ambitious to work hard at the subject.

Bacteriology likewise needs no such wonderful laboratory for a very efficient training in the subject. It is true there are accessories which add a great deal to the subject, but these accessories are often so expensive and the technique for use so intricate that few beginning practitioners would have much of an opportunity to use them in daily practice, even had they the means to purchase them. Is this not actually the fact in busy private practice even today?

Pathology is another subject of somewhat similar conditions. An adequate museum is of course essential and autopsy facilities likewise.

Physiology needs lots of equipment, but even in Physiology there is a limit to the amount of knowledge of that subject which a student can get into his head in the two years of the nine months each; and if the student strives too earnestly to fill his brain with the knowledge of collateral experiments and hypotheses, it will probably be at the expense of those major facts which should be at his fingers' ends in private practice.

So that it would seem that the thirty thousand dollars annually and the excellent buildings and equipment at



Berkeley should be ample to give pretty thorough training to the less than fifty students in the medical department at that place.

#### THE CLINICAL FACILITIES IN LOS ANGELES.

This brings us to a consideration of the clinical facilities at San Francisco and at Los Angeles.

We will not discuss San Francisco's clinical facilities in this article, because the **PRACTITIONER** is particularly interested in Southern California. What are the clinical facilities in Los Angeles?

Los Angeles has now a population of more than three hundred thousand persons. The Los Angeles Department of the College of Medicine of the State University is situated in the crowded Mexican part of the city. The Dispensary of this College is now treating more than seven thousand new patients a year, and with the returning patients there is a total of more than twenty thousand persons who annually receive treatment at this Dispensary.

The Los Angeles County Hospital now has close on to five hundred beds, and half of these are at the disposal of the Los Angeles College of Medicine, for clinical instruction.

The Children's Hospital has some thirty beds, and will shortly erect a new building on Castelar street just opposite the College, with a much larger capacity. The staff of this hospital is appointed by the faculty of the Los Angeles Department of the College of Medicine. Here will be excellent opportunities in pediatric and obstetric instruction.

The Barlow Sanatorium has about forty beds, and the staff of this institu-

tion is also composed of members of the faculty of the Los Angeles Department of the College of Medicine.

Now all of the above clinical facilities (which are bound to grow amazingly in the next ten years, for there is every possibility of Los Angeles being a city of six hundred thousand in 1920) are at the disposal of the Los Angeles Department of the College of Medicine of the State University.

#### THE YEAR JUST CLOSED.

The College in the year just closed had nine senior and fifteen junior students, a total of **twenty-four upper class** men, so that we may see that these twenty-four students had access to seven thousand dispensary patients, and that the nine seniors attended hospitals having a total of more than three hundred beds. The seniors averaged eight hours' instruction under instructors in medicine, at the bedside, and about eight hours in surgery, and in addition were required to work up their case histories, the hospital beds being open to them for that purpose at other times.

It seems to us that the criticism of Los Angeles should not be as to lack of clinical facilities from the standpoint of the number of dispensary or hospital patients, but whether or not the said twenty-four students adequately utilized the immense amount of material at their disposal.

To teach these twenty-four students, the Los Angeles Department has a faculty of didactic and staff teachers of some seventy-five men, many of them holding liberal arts, as well as medical degrees and with years of experience as teachers.

It is quite possible that some of the teachers' methods could be considerably improved. The faculty of the Department is certainly striving hard to bring about needed improvements. Its members feel certain that these improvements will come, and with a fair degree of rapidity. They would like very much to see some of the major chairs held by practitioners who would devote their entire time to teaching.

But it still has to be shown if it be not true that the practicing physician who has had adequate preliminary education, proper professional training and much actual experience is not only the equal, but not infrequently the superior, of the paid professor. A large number of teachers are born not made, and this truth, it seems to us, applies sometimes with special applicability to medical teachers.

#### TO SUM UP.

These are a few of the thoughts which occur to us from the hasty reading of the excerpts from the report on medical education, by the Carnegie Foundation. We shall look forward to having a copy of the report in its entirety, because we are certain it will prove to be a most interesting and valuable monograph, and one which will exercise a great influence on medical education in the future.

The detailed criticisms of the report largely concern the two institutions which are striving most earnestly in this State to elevate the standard of the preliminary education and of professional medical training. It is possible that these criticisms are deserved; certainly they will be an incentive to

those institutions to make good in spite of the discouragements pointed out in the report. It would be unfair to demand that they should do all this in a month or in a year. Medical Education in California would receive a distinct drawback by the abolition of either the State University or Stanford Medical Departments, since these institutions are really the backbone of the fight for higher standards in medical teaching in California.

If at the end of a year or two the deficiencies pointed out in the report of the Carnegie Foundation should still be evident, then it would be time enough to discuss whether or not the work to which they had pledged themselves should not be transferred to others. But in the meantime it seems to us that they owe it to themselves, to the medical profession, and to the State and to the people of California to continue their fight for better standards and to strive for the attainment of those ideals to which they as well as the Carnegie Foundation so gladly subscribe.

We believe that when the next report of that magnificent Foundation appears there will be a better story. At any rate, time will tell. G. H. K.

#### CARNEGIE FOUNDATION SUED BY A ST. LOUIS COLLEGE OF MEDICINE.

The following item should be of interest in connection with other editorials in this issue of the PRACTITIONER.

MEDICAL TRIO SUED—CARNEGIE FOUNDATION COMMITTEE DEFENDANTS IN  
DAMAGE SUIT BEGUN AT ST. LOUIS.

"St. Louis, June 10.—[Exclusive Dispatch.] The St. Louis College of Phy-

sicians and Surgeons filed suits late this afternoon for \$100,000 damages against Abraham Flexner, Dr. Henry S. Pritchett and Dr. George H. Simmons, alleging the institution was damaged to that extent by the report of medical colleges read before the American Medical Association.

"The three defendants comprised the committee which investigated the educational standing of medical colleges of the United States in behalf of the Carnegie Foundation. The committee reported the St. Louis College of Physicians and Surgeons among the number that it did not consider efficient.

"Dr. Simmons is general secretary of the American Medical Association, and is editor of *The Journal*, the official organ of the association. By the medical insurgents he is regarded as the 'Joe Cannon' of medicine."

We do not know the nature of the Carnegie report on this college, but it appears to us that the action of the institution is most injudicious.

It must be granted, we believe, by all who are familiar with the nature of the Carnegie Foundation and with the well-known integrity of its president, Dr. Pritchett, that he would neither allow himself or any fellow committeemen or investigators to publish aught over the name of the Carnegie Foundation but what seemed to him and to them absolutely true statements of facts.

It is possible for them, as for other human beings, to sometimes commit errors of judgment, but no matter how severe the criticisms in their late report may have been, we must all acknowledge that there was certainly a good reason for much of what was said.

Many of their criticisms fell heavily upon those institutions to whom they

naturally looked for the highest standards and ideals. Whether this was the wisest course at this particular stage of evolution of medical education, may be a question.

But that their course will undoubtedly result in marked improvement by those institutions in the next several years, few will deny.

To sue or to malign will only concentrate attention on defects. Perhaps in that way even suits may be of service.

The wiser plan would be, however, to so improve conditions as to merit a favorable report in the next announcement on medical education by the Carnegie Foundation.

It would be an absurdity to think that the officers and investigators of that Foundation would not be only too glad to give such favorable recognition, should adequate progress merit such favorable report.

All who know or are familiar with the reputation of men like Drs. Pritchett and Simmons and Mr. Flexner, will agree that in this, as in other past activities, they will show their broad training and high character.

The medical profession and medical colleges and medical educators need not fear the Carnegie Foundation. It has no commercial interests at stake, no private quarrels to settle, and no work to do other than that of subserving to the fullest extent the interests of the medical profession and the people alike.

Let our regret be, not that it is with us and able to do its work, but that it was not with us a long time ago.

G. H. K.



## EDITORIAL NOTES

Dr. J. B. Baker has located in Lompoc.

Dr. E. J. Riche has located in Watts, Los Angeles county.

Dr. C. W. Harvey, formerly of Tacoma, has located in Anaheim.

Dr. J. I. Arwine has been appointed Southern Pacific surgeon at Lancaster.

Dr. J. H. McKellar of Pasadena, is taking post-graduate work in New York City.

Dr. B. McMonagle of San Francisco was recently a visitor in Southern California.

Dr. J. M. Lacy of Santa Ana recently underwent a successful operation for cataract.

Dr. W. L. Cuthbert, the pioneer physician of Long Beach, is recovering from a serious illness.

The *Tucson Star* says a branch of the Pottenger Sanatorium (Monrovia) is to be established in Tucson.

The engagement of Dr. Ralph Williams and Miss Dorris Davidson, both of Los Angeles, has been announced.

Police Surgeon Charles E. Zerfing very wisely asks for two female nurses for the Los Angeles Receiving Hospital.

Dr. R. D. Potts of Oxnard has retired from practice and has been succeeded by Dr. Allen Peck, recently of Palo Alto.

Dr. C. C. Stephenson, who devotes himself to eye, ear, nose and throat, has located in the H. W. Hellman Building, Los Angeles.

The Seventh Day Adventists will make an initial expenditure of \$25,000 for buildings for the Medical College at Loma Linda.

Dr. Hoell Tyler of Redlands read a paper on "Intestinal Parasites" at a re-

cent meeting of the San Bernardino County Medical Society.

Dr. C. D. Dickey of San Bernardino, recently suffered from a stroke of paralysis, but was at latest accounts reported as recovering.

Dr. Eleanor Seymour, of Los Angeles, house physician of the Pacific Hospital, has been attending the American Medical Association at St. Louis.

Dr. Walter E. Deering and Miss Lillian Rose Moody, both of Hollywood, will be married Tuesday by Father Cotter in the Church of the Blessed Sacrament.

Dr. Rea Smith of Los Angeles, who has removed many appendices, had his own removed May 29. He made a prompt recovery and is now wielding scalpel himself.

Pasadena is preparing to entertain six hundred delegates to the American Institute of Homeopathy that holds its annual convention at the Hotel Maryland July 10 to 17.

Dr. John C. King of Banning, President of the California State Medical Society, has been dangerously ill, but, to the joy of his many friends, is now well along in convalescence.

Buffalo Bill's (Col. Wm. F. Cody) son-in-law, Dr. Charles W. Thorp, died the first of May. Dr. Thorp was a graduate of Gross Medical College and had practiced in Denver for several years.

One of the most welcome guests at the dinner given in honor of Drs. Lasher and Kurtz was Hon. J. W. McKinley, Regent of the University of California. The Judge's speech was graceful and forceful.

Five nurses graduated June 8 from the Riverside City Hospital. The grad-

uates are Misses Rose E. Cunningham, Loretta M. Hope, Mabel E. Rounthwaite, Florence A. Stillman and Ruby Elizabeth Warr.

Dr. F. S. Dillingham has been spending a few weeks in New York hospitals. The doctor went by way of New Orleans, visited Washington, from New York went to Montreal, and came home by way of the Canadian Pacific.

Dr. E. W. Fleming of Los Angeles has returned from the annual meeting of the American Laryngological Society at Washington, D. C. Dr. Fleming also took occasion to witness leading specialists operate in Johns Hopkins and other Eastern hospitals.

Messrs. Thomas P. Haley, Jr., and Fred W. Sutton, representing the Peacock Chemical Co. and Sultan Drug Co., gave the delegates to the American Medical Editors' Association a delightful automobile ride through St. Louis Sunday afternoon, June 5.

Dr. J. R. Hurley, formerly of San Bernardino, Assistant Surgeon Public Health and Marine Hospital Service, is Quarantine Officer of the port of Iloilo and District Health Officer for the Province of Iloilo, Antique and Capiz, Island of Panay, Philippine Islands.

Miss E. A. Lampman, formerly Superintendent of Nurses of the California Hospital (Los Angeles), at present Superintendent of Nurses of the Flower Hospital, New York City, sends us an invitation to the semi-centennial celebration of the founding of the New York institution.

Dr. J. A. Smith, age 64, died in San Diego May 20. Dr. Smith was a Civil War veteran and had been a practicing physician in Missouri for twenty-five years. At the time of his death he was sanitary inspector of San Diego. He was also a prominent clergyman in the Christian Church.

The personnel of the Board of Pension Examiners at Santa Monica and the Soldiers' Home has been changed by the appointment of Dr. F. J. Wagner to replace Dr. P. S. Lindsey, resigned. The board now consists of Dr. H. E. Hasse, president; Dr. F. J. Wagner, treasurer; and Dr. G. A. Fielding, secretary.

Dr. William Osler, regius Professor of Medicine in Oxford, 13 Norham Gardens, Oxford, England, has written his friend, Dr. W. A. Edwards of Los Angeles, recommending very highly a medical man who desires a position in a sanatorium in Southern California. Any person interested should write either Dr. Osler direct, or Dr. Edwards.

We have received the following reprints from Horace D. Arnold of Boston:

- (1) High-Frequency Electricity in the Treatment of Cardiac Disease.
- (2) The Importance of the Early Detection of Aneurysm of the Aorta.
- (3) Physics of Physical Signs, with Special Reference to the Respiratory Murmur.

Abraham Flexner has written a report on medical education in the United States which has been issued by the Carnegie Foundation. We regret that it is not accurate. Take for instance his statement that the Los Angeles County Hospital has only 100 beds. The fact is there are in this hospital 450 beds, and frequently more than that many patients.

Among those in attendance at the recent Territorial Medical Meeting at Phoenix was Dr. Clarence L. Cole, First Lieutenant and Assistant Surgeon, United States Army, stationed at Prescott. Lieutenant Cole is one of our best American authorities on tropical diseases. His work on "Necator Americanus in Natives of the Philippine Islands" is of recognized value.

Mrs. Mary Garvin Brown Hastings, wife of Dr. Hill Hastings, of Los Angeles, died May 27. Dr. Hastings brought his charming bride from Louisville, Kentucky, two or three years ago. She was universally admired. The heartfelt sympathy of the profession goes out to Dr. Hastings.

We have received the following reprints from Dr. Robert C. Coffey of Portland, Oregon:

(1) Pancreato-Enterostomy and Pancreatectomy.

(2) Plastic Surgery of the Abdominal Wall.

(3) The Principles on Which the Success of the Surgical Treatment of Retrodisplacements of the Uterus Depends.

At a recent meeting of the Southern California Eclectic Medical Association held in Los Angeles in the assembly hall of the California Eclectic Medical College, the following officers were elected for the ensuing year: President, Dr. A. P. Baird, Los Angeles; vice-president, Dr. H. Scott-Turner, Pomona; secretary, Dr. W. J. Lawrence, Los Angeles; treasurer, Dr. J. A. Munk, Los Angeles.

Miss Anne A. Williamson, Superintendent of Nurses of the California Hospital, Los Angeles, has recently been appointed a member of the California State Committee on Red Cross Nursing Service. Her appointment came from the National Headquarters, Room 341, State, War and Navy Building, Washington, D. C. Miss Jane A. Delano is Chairman and Miss Georgia Nevins Secretary of the committee.

In connection with the not yet forgotten naval battle over the eligibility of a surgeon to command a United States ship of war (in the hospital service) it is interesting to note that the two ranking officers in the United States Army are physicians. "Dr." Leonard

Wood, M.D., Harvard '84, is major-general and chief of staff, and "Dr." F. C. Ainsworth, M.D., New York University, '74, is ranking major-general.

The Pacific Hospital Training School for Nurses held its annual commencement Thursday evening, May 19, at Cummock Hall. Dr. Andrew Stewart Lobingier administered the Hippocratic oath and then with some graceful remarks presented diplomas to the following young ladies: Elizabeth Herr, Annie H. Burdorf, Matilda A. Martin, L. Violet Armstrong, Gladys Morrissey, Dena Margaret Eichel, Freda R. Newman.

*McClure Magazine* for April contains three articles that justify its wide circulation: First, and of incalculable importance, Preventable Blindness. Second, Some Modern Ideas on Food. Third, What Whisky Is. In order to clinch the teachings of the article on "Preventable Blindness," the management of the California Hospital, Los Angeles, presented each of the one hundred fifteen nurses on duty with a copy of the magazine.

Dr. N. P. Crooks of Santa Barbara, surgeon on the Japanese liner Tenyo Maru, which arrived at San Francisco, May 20, from the Orient, was left in the hospital at Yokohama on the outward voyage, suffering from enteric fever. When the Tenyo left Yokohama on the homeward run the crisis of the fever had passed, and the doctor was thought to be out of danger. Dr. L. P. Craig was appointed acting surgeon in Crook's place.

Dr. W. E. Hibbard of Pasadena is an enthusiastic boomer for the Tahiti trip. He says he was broken in health last year, but returned from the Tahiti trip entirely recovered. A limited party of fifty will leave Los Angeles August 6. Any physician interested can get further data by ringing up Dr. Hibbard,



Home 1064, Pasadena, or addressing him, Chamber of Commerce Building, Pasadena.

Dr. Sherwin Gibbons, of the Los Angeles Board of Health, is candidate for Coroner of Los Angeles county. Dr. Gibbons was born in Boston, Massachusetts, educated in the Boston public schools and was graduated from Harvard with the degrees of bachelor of arts and doctor of medicine. After a year abroad, during which he attended lectures at Edinburgh and Glasgow, he began the practice of medicine in 1898.

Dr. David W. Cheever recently resigned as senior surgeon of the Boston City Hospital. "The medical and surgical staff," says the *Boston Medical Journal*, "communicated to their late colleague their regrets and their high appreciation of his distinguished services." Dr. Cheever received the degree of A.B. from Harvard in 1852, M.D. in 1858, and LL.D. in 1892. He is now Emeritus Professor of Surgery of Harvard Medical College and has been for many years Boston's most eminent surgeon.

During the recent Southern California Medical Society's semi-annual meeting at Redlands, Dr. and Mrs. C. A. Sanborn opened their home on Clifton avenue for an informal reception to the visiting ladies, and after the session at the hotel a number of the gentlemen enjoyed a short time with them. The affair was given by the wives of the members of the Physicians' Club, and it was most informal with music and cards for those who enjoyed this mode of entertainment. Light refreshments were served during the evening by the hostesses, who were Mrs. C. A. Sanborn, Mrs. S. Y. Wynne, Mrs. E. A. MacDonald, Mrs. C. E. Ide, Mrs. Hoell Tyler, Mrs. W. P. Burke, Mrs. M. W. Hill, Mrs. J. L. Avey, Mrs. T. M. Blythe, Mrs. H. Ford Scudder, and

Mrs. J. A. Shreck. The rooms were decorated with roses and carnations.

As we sat at the table with 200 other physicians celebrating the close of twenty-five years' teaching of surgery by Dr. Joseph Kurtz and Dr. George W. Lasher, we thought "how delightful this gathering is," and the one to Dr. Bicknell, and to Dr. Follansbee! The spontaneous tribute to the first Dean, Dr. Joseph P. Widney, must have made him realize the place he holds with us. Then that irresistible wave of love and affection that swept from table to table when the name of Dr. Claire Murphy—Our Anatomist—was mentioned. Oh! if profound affection could put Claire back as he once was in that faculty he would speedily be there. Among other thoughts that came to us was "that few realized how much work and sacrifice the present position of the college as an integral part of the University of California had cost our presiding officer, the Dean, Dr. W. Jarvis Barlow." *Lest we forget.*

The Pomona Valley Medical Society met at 8 p.m. May 12, at the Pomona Tavern as guests of Drs. Breed and Huntington, the occasion being a farewell meeting for Dr. C. G. Toland, who leaves May 15 for the East. Papers were presented by Drs. A. S. Lobingier, W. W. Richardson and M. R. Toland, of Los Angeles. Following the regular meeting of the Medical Society, a supper was served at which Dr. Frank Garcelon acted as toastmaster. Responses by Drs. Lobingier, Richardson, F. W. Thomas, J. K. Swindt and T. J. Wilson showed the deep appreciation of Dr. Toland's work and life in Pomona, and the love and esteem in which he is held by the profession. Dr. Toland in a few words expressed his appreciation of their helpfulness to him. Later, in the parlor, the guests were entertained with music, and especially enjoyed solos by Dr. Swindt.

Dr. Emil G. Beck of Chicago sends us the following reprints:

(1) Surgical Treatment of Tuberculous Pleurisy, Lung Abscess and Empyema.

(2) Diagnostic Aids in Diseases of the Lung and Pleura.

(3) Some Practical Points in the Application of the bismuth in Chronic Suppurative Diseases.

In conclusion, Dr. Beck says:

"We have the assurance of its effectiveness from all directions and may therefore now unhesitatingly recommend its use in suitable cases.

"It is true that there is danger of bismuth poisoning, and possibility of failure, but the proportion of satisfactory results is so vast that with proper precautions against the toxic effects and

with the perfection of technique the method will find many advocates.

"In conclusion I wish to advocate a healthful conservatism in the use of the bismuth paste, and appeal to enthusiasts not to carry their experiments beyond the safety line.

"There is danger of bismuth poisoning. There is danger of compressing vital organs, such as the brain or the pancreatic ducts. A drop of paste injected into a vein will cause death almost instantly, and in acute conditions it may be harmful. Let us not forget that the bismuth method of treatment of chronic suppurative diseases is not intended to displace all other well-tried and valuable methods, but is to serve as an addition to them, which, owing to its simplicity and its wide field of application, will find many adherents."

## SOCIETY PROCEEDINGS

### THE ARIZONA MEDICAL ASSOCIATION.

#### Minutes of the General Meetings of the Nineteenth Annual Session.

The Nineteenth annual session of the Arizona Medical Association was held in the Knights of Pythias Hall, Phoenix, April 20 and 21, 1910. The meeting was called to order at 9:30 a. m., Wednesday, April 20, by President R. N. Looney of Prescott.

Willard Smith of Phoenix delivered a very cordial address of welcome to the members and guests.

William V. Whitmore of Tucson responded with a hearty appreciation of our warm welcome.

The Acting Secretary then read a letter from Secretary Flinn in which he expressed his sincere regrets at not being able to attend the first day's meeting of the Association.

The annual essay was then read by W. Warner Watkins of Phoenix, his subject being "Similia Similibus Curantur." The thoroughness and consistency with which the subject was dealt were especially commented on by J. Wilson Shiels of San Francisco. The association then adjourned until 10:45 a. m.

The second session convened at 10:45 a. m., with President R. N. Looney in the chair.

J. Wilson Shiels of San Francisco then delivered the oration on Medicine, a masterpiece of Science and Logic, his subject being "Post-Continental-Macro-Cephalgia."

A very exhaustive and thorough paper entitled "Ankylostomiasis" was read by Captain C. L. Cole of Whipple Barracks. Microscopic demonstration of both the ovum and worms was made, also many photographs and drawings of both. The discussion, which was very interesting and thorough, was opened by Yount of Prescott, who was followed by Redewill of Phoenix. The Chair called on J. Wilson Shiels of San Francisco for the final discussion.

Then a very interesting paper entitled, "A year's work at the Eye Hospital of the Phoenix Indian School," was read by Ancil Martin of Phoenix. In this paper was clearly shown the gradual elimination of Trachoma from

the Indians. The paper was discussed by Troutman of Tucson and Simpson of Phoenix.

The last paper of the second session was on the "Demonstration of a rare case of Insanity," by J. A. Ketcherside of Phoenix. The discussion was opened by Hughes of Phoenix and followed by Monical, Plath, Bacon, Shine and Shiels. The Association then adjourned to meet at 2:30 p. m.

The afternoon session convened at 2:30 p. m., with R. N. Looney in the chair.

This meeting was opened by W. W. Beckett of Los Angeles, who delivered the Oration on Surgery, entitled "Thoracic Surgery," a very interesting, thorough and scientific paper.

Then followed a paper by Ralph F. Palmer of Mesa, entitled "Hemorrhage of the Middle Meningeal Artery," in which he reported a very interesting case. The paper was discussed on request from the Chair by W. W. Beckett of Los Angeles, who was followed by Win Wylie of Phoenix.

Owing to Yount of Prescott having to return home his paper entitled "Acute Oedema of the Lungs," with report of cases, was next called; a very interesting paper which especially dealt with the different theories of the reflexes causing oedema of the lungs. The discussion, which was quite brisk and thorough, was opened by Willard Smith of Phoenix followed by Kennedy of Globe and Hughes of Phoenix and closed by Shiels of San Francisco. The Association then adjourned until 4:15 p. m.

The second session of the afternoon was called to order at 4:15 p. m., by President R. N. Looney.

A telegram from Wm. D. Cutter from Hartford, Conn., expressing his regrets at not being present and wishing us a successful meeting, was read by the Acting Secretary.

The first paper was read by Attorney Paul Burks of the Law Department of the Santa Fe Railroad, entitled "Suggestions regarding testimony of Medical Experts;" a most complete and interesting paper covering the subject of Medical Jurisprudence. The discussion of this paper was postponed until the following paper was read, when they both were discussed together.

A paper entitled "Brains" by Geo. D. Troutman of Tucson was then read. This most interesting paper dealt with the differentiation between the brain and mind. Then the two papers were dis-

cussed with considerable animation. Shiels opened the discussion, during which he made very complimentary remarks to both authors. He was followed by Yount, Ketcherside, Hughes and Troutman, who went over the criticisms very thoroughly. Paul Burks made a very strenuous and effective defence of the many points put forth in his paper and closed the discussion.

Next came a very interesting paper entitled, "Mummified Foetus with Presentation of Specimen," by Ralph L. Alexander of Tempe. The discussion of this paper was opened by Ketcherside of Yuma and closed by Palmer of Mesa. The association adjourned until 10 o'clock the following morning.

The Association met at 10 a. m., Thursday, April 21, with R. N. Looney in the chair.

The meeting was opened by John W. Foss of Phoenix, by reading a paper entitled "Autogenous Vaccines" a very extensive paper on serum therapy. This paper brought forth considerable discussion, which was opened by Monical, who was followed by Ketcherside, Alexander, Watkins, Hughes and Foss.

A very interesting paper entitled "Susceptibility to Infection and Contagious Diseases of Mixed Blood in the Indians," was read by Roy Thomas of Phoenix. The discussion was opened by Brayton of the Indian School Service, who was followed by Watkins, and closed by Ketcherside.

The Reverend Atwood of Phoenix, then extended an invitation to all to visit St. Luke's Hospital for Tuberculous Patients.

A telegram from James A. Egan, Springfield, Illinois, expressing his regrets was then read by the Acting Secretary.

Next came a paper entitled, "Some Practical Difficulties in Public Health Administration," by E. S. Godfrey, Jr., of Phoenix. The discussion was opened by Hughes. W. W. Beckett of Los Angeles, closed the discussion, and dealt very fully with the political side of the question.

Hughes of Phoenix then read a resolution entitled, "Revocation of a Physician's License for Neglect to Report Cases of Infectious Diseases; Births and Deaths." The discussion was opened by Southworth of Prescott, followed by Godfrey and closed by Shiels, who discussed at some length the justification and the injustice of it.

Francis Redewill of Phoenix followed



with a paper, his subject being, "Pellagra, Pathology, Symptoms and Treatment," with demonstrations of lesions etc., by lantern slides. Discussed by Lacy and others. Councillor Bacon then took the chair.

Hughes then read a paper entitled, "The Attitude of the Physician towards the use of Intoxicating Liquors."

The meeting then adjourned sine die.

(Signed) JOHN K. McDONNELL,  
Acting Secretary.

MINUTES OF THE COUNCIL OF THE NINETEENTH ANNUAL SESSION, HELD AT PHOENIX APRIL 19-20-21, 1910.

First session called to order by President R. N. Looney of Prescott. Meeting held in Otto Plath's office at 8:30 p.m., April 19, with three members present, Looney and McDonnell of Prescott and Plath of Phoenix. Otto Plath was elected Chairman and McDonnell elected clerk.

Report of northern district by McDonnell was read.

The Council then adjourned to meet at 6:30 p.m., Wednesday, April 20, 1910.

Second meeting of the Council was held in the Knights of Pythias Hall, Phoenix, 6:30 p.m., Wednesday evening, April 20.

The Council was called to order by Plath. The members present were, Plath, McDonnell, Bacon and Looney.

The Treasurer's report was audited and report of same was drafted and sent to the House of Delegates.

The Secretary's report was discussed and sent to the House of Delegates.

John W. Flinn of Prescott, was appointed Editor of the Arizona Medical Association for the ensuing year.

The Council then adjourned to meet at 5:30 p.m. Thursday evening, April 21.

Last meeting of the Council was in the K. P. Hall at Phoenix, Thursday evening, April 21.

The meeting was called to order by Bacon. The members present were, Simpson, Bacon and McDonnell. The work for the ensuing year was thoroughly discussed.

The Council then adjourned sine die.  
(Signed)

JOHN K. McDONNELL,  
Clerk.

REPORT OF THE SECRETARY

*To the President and Members of the House of Delegates of the Arizona Medical Association.*

GENTLEMEN:—I beg to submit herewith the annual report of the Secretary

for the year 1909-10. At the beginning of the present fiscal year the Association had One hundred and twenty members. During the year three members were added from Cochise County; five from Yavapai County (one by transfer card) and one from Maricopa County, making a total of One hundred and twenty-nine members.

This year we have One hundred and thirty-seven (137) members, and will probably enroll more before the end of the year. Our membership at present is as follows:

Cochise County .....	32 members
Maricopa County .....	54 members
Pima County .....	17 members
Santa Cruz County.....	8 members
Yavapai County .....	26 members

During the year we lost two members by death, Dr. A. S. Russell of Washington Camp, Santa Cruz County, and Dr. W. B. Purcell of Tucson, Pima County, both of whom suffered a violent death.

The arrangement of last year with the Southern California Practitioner was continued, and to our mind proved quite satisfactory. We would recommend that a similar arrangement be made with the publishers of the Practitioner for the ensuing year.

The editor of this Association has received practically no help, whatever, during the year in gathering or preparing Medical news for the Practitioner. He would strongly recommend that a County reporter be named by their respective County Societies whose duty it shall be to collect items of interest to the profession from the County and forward them each month to the Arizona Editor of the Practitioner.

The Secretary would again recommend that the secretaries of all County societies be urged strongly to attend the annual meeting of this Association, and that their expenses should be paid out of the funds of their several County Societies. County secretaries should also report *immediately* each member joining their respective societies during the year, so that a card index system, kept in the office of the Secretary of this Association, can be at all times correct and complete. Moreover, our By-Laws require County Secretaries to forward the names of the non-members in their annual reports, as well as the names of members of their societies.

During the past years, no secretary of the Association has received practically any help in arranging the programs for

the annual meeting, although a Committee on Scientific work has been named each year whose duty it is to attend to this matter. The secretary would strongly recommend that a strong, representative committee on Scientific work be appointed this year, and that it meet before the end of the present session and make preliminary arrangements for next year's program.

The secretary is strongly of the opinion that each member of this committee should be made responsible for procuring papers from the members of the Association residing in his district, as the work of preparing the program is becoming altogether too great to be left solely to the secretary.

Good work has been done by the several County secretaries during the year, but special praise is due Dr. Wm. D. Cutter, the present secretary of the Cochise County Medical Society, for his very efficient work and prompt report. The Secretary wishes to express his thanks to the other officers of the Association for their uniform courtesy and assistance in the work.

All of which is respectfully submitted.

JOHN W. FLINN,  
Secretary.

#### TREASURER'S REPORT.

YUMA, ARIZ., April 20, 1910.

Mr. President:

I beg leave to submit my annual and final report as Treasurer of the Arizona Medical Association. It is as follows:

#### CASH RECEIVED.

May 22—Cash on hand.....	\$309.90
Nov. 22—For 3 members of Cochise Co. Medical Association.....	6.00
Feb. 14—For 32 members of Cochise Co. Medical Association.....	64.00
April 16—For 24 members of Yavapai Co. Medical Association..	48.00
April 16—For 35 members of Maricopa Co. Medical Association....	70.00
April 16—For 17 members of Pima Co. Medical Association.....	34.00
April 21—For 4 members Yavapai Co. Medical Society, 1909.....	8.00
April 21—For 1 member of Maricopa Co. Medical Society, 1909..	2.00
April 21—For 19 members of Maricopa Co. Medical Society.....	38.00
April 21—For 8 members of Santa Cruz Co. Society.....	16.00
April 21—For 2 members of Yavapai Co. Society.....	4.00
	<hr/>
	\$599.90

#### CASH PAID OUT.

1909.	
May 22—To J. J. Hawkins on bill..	\$ 10.00
Nov. 20—To J. W. Flinn for stamps .....	5.00
Nov. 20—To Journal-Miner Pub. Co. ....	6.50
Dec. 6—To Stenographer.....	15.00

1910.

Jan. 19—To Southern California Practitioner .....	54.00
Jan. 19—To John W. Flinn for stamps .....	10.00
Feb. 19—To M. C. Lilley & Co., for badges .....	6.00
Feb. 19—To John W. Flinn for M. C. Lilley & Co. ....	6.00
Feb. 19—To Journal-Miner Publishing Co. ....	6.50
Feb. 19—To Miss Minnie Seaman, Stenographer .....	15.00
March 18—To Miss Minnie Seaman, Stenographer .....	15.00
April 16—To Miss Minnie Seaman, Stenographer .....	15.00
April 16—To John W. Flinn, for stamps .....	15.00
April 16—To Journal-Miner Publishing Co. ....	21.00
April 21—The Southern California Practitioner .....	54.80

\$234.80

Balance on hand.....\$345.10

All of which is respectfully submitted.

E. B. KETCHERSIDE,  
Treasurer.

#### REPORT OF COUNCILLORS ON AUDITING SECRETARY'S AND TREASURER'S REPORTS.

To the Officers and Members of the House of Delegates of the Arizona Medical Association—Gentlemen:

The Councillors of this Association have examined the reports of the Secretary and the Treasurer, and beg to report as follows:

The balance on hand at the beginning of the present fiscal year was .....\$299.90  
The total receipts were.....290.00

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\$589.90

The expenses for the year were as follows:

Southern California Practitioner..	\$108.80
Secretary's Stenographer .....	60.00
Stationery and Printing.....	16.50
Programs for 1910 Meeting.....	17.50
Badges for 1910 Meeting.....	12.55
Stamps .....	23.45
Signature Stamp .....	2.50
Blank Book for Minutes.....	1.75
Telegrams .....	1.75

Making a total of.....\$244.80

This leaves a balance on hand of .....\$345.10

We have compared the vouchers with the items of expenditure and find them to correspond exactly and that the accounts are correctly kept.

All of which is respectfully submitted.

JOHN K. McDONNELL,  
JOHN E. BACON,  
Councillors.

#### MINUTES OF THE HOUSE OF DELEGATES OF THE NINETEENTH ANNUAL SESSION HELD AT PHOENIX, APRIL 20-21, 1910.

First session was called to order at 9 a.m., Wednesday, April 20, by President R. N. Looney of Prescott.

Roll call by the Secretary showed

seven members of the House present, President R. N. Looney, Prescott; Councillors, J. K. McDonnell, Prescott; O. E. Plath, Phoenix; J. E. Bacon, Tombstone.

Delegates, Yavapai County Society, C. E. Yount, Prescott; Maricopa County Society, W. I. Simpson, Phoenix; Pima County Society, I. E. Huffman, Tucson.

The minutes of the last annual session were then read and approved.

The report of the Secretary was then read and on motion of Plath was referred to the Council. Then followed the reading of the Treasurer's report and on motion of Bacon it was referred to the Council to audit.

The following committees were then appointed:

The Committee on Necrology, consisting of Otto E. Plath, Phoenix, Chairman, Wm. V. Whitmore, Tucson, and Geo. D. Troutman, Tucson.

The Committee to draft resolutions on the Bill introduced in Congress by Senator Owen of Oklahoma; a bill dealing with the Public Health and Pure Food, and known as the "Senate Bill," No. 6049. Chairman, E. S. Godfrey, Phoenix; C. E. Yount, Prescott and J. H. Lacy, Globe.

The House then adjourned until 9:30 a.m., Thursday morning, April 21.

Second meeting of the House of Delegates was called to order by President R. N. Looney, of Prescott, at 8:30 a.m., April 21, 1910. All registered members present.

As several of the committees asked for further time to report the meeting adjourned to meet at 3 p.m.

The third and last meeting of the House of Delegates was called to order by President Looney at 5:30 p.m., April 21. All registered members present.

As the Maricopa County Society had more than fifty registered members, the attention of the House was called to the fact that this County was entitled to two members in the House of Delegates, and Ralph F. Palmer of Mesa took his seat as a second Delegate from Maricopa County.

The Committee on Necrology stated that their report was not yet ready, and asked that they be allowed to forward it to the Secretary at a later date.

The report of the Committee on the Senator Owen's Public Health Bill was read by Godfrey of Phoenix, and on motion of Flinn seconded by Bacon, it was accepted, and the Secretary ordered

to send a copy to Senator Owen at Washington.

The Councillor's report was read by Bacon, and on motion of Simpson seconded by Linn, was adopted.

On motion by Simpson seconded by Bacon, the matter of entertaining the Arizona Medical Association at its annual session was left to the County Society of the County in which the annual meeting was held.

Report of special committee on Public Health Legislation appointed at the last annual session of the Association was read by Southworth of Prescott, and on motion by Troutman and seconded by Flinn, was adopted.

On motion by Bacon seconded by Palmer, a very hearty vote of thanks was extended to Drs. Shiels and Beckett and Mr. Paul Burks, for their kind and valuable assistance.

On motion by Bacon seconded by McDonnell, a very hearty vote of thanks was extended the Maricopa County Medical Society for their kind hospitality.

It was moved by Troutman and seconded by Simpson, that Dr. W. W. Beckett be asked to send the Secretary of the Association a copy of his very able address, on the matter of Public Health, in reference to Statehood.

Southworth of Prescott presented a petition signed by a large number of the health officers of the Territory, asking that a section of Public Health and Hygiene be conducted in connection with the annual meetings of the Association.

On motion of Flinn seconded by Simpson, this matter was referred to the Committee on Scientific Work, and with request that it adopt the suggestions, if it were found practicable.

The election of officers then took place, and the following officers were elected for the year 1910-11:

President, John W. Foss, Phoenix; First Vice-President, Francis E. Shine, Bisbee; Second Vice-President, R. D. Kennedy, Globe; Third Vice-President, Ira E. Huffman, Tucson; Secretary, John W. Flinn, Prescott; Treasurer, E. B. Ketcherside, Yuma; Councillor, Wm. I. Simpson, Phoenix. Delegate to the American Medical Association, Wm. V. Whitmore, Tucson; Alternate Delegate, John E. Bacon, Tombstone.

Next place of meeting Bisbee, the first Wednesday and Thursday in May, 1911.

On a motion by Flinn seconded by Palmer, a very hearty vote of thanks was extended to President Looney for



the very efficient manner in which he attended to the duties of his office during the year. The meeting adjourned sine die.

(Signed) JOHN K. McDONNELL,  
Acting Secretary

REPORT OF COMMITTEE ON SENATOR OWEN'S  
BILL

Resolutions adopted by the House of Delegates of the Arizona Medical Association at its session held in Phoenix, April 20-21, 1910, endorsing the resolution adopted by the House of Delegates of the A. M. A. to-wit:—

Amendments to the National Food & Drugs Act.

RESOLVED, That the Arizona Medical Association, respectfully urges on the Congress the necessity of amending the National Food and Drugs Act, in the following particulars, viz.,

1. To prohibit, absolutely and unqualifiedly, the use of benzoate of soda and similar preservatives in the preparation and preservation of foods destined for interstate commerce.

2. To provide for a system of federal inspection of all establishments engaged in the preparation of foods destined for interstate commerce, such inspection having for its special object (a) the enforcement of sanitary cleanliness in such establishments; (b) the prevention of employment in them of persons afflicted with contagious or infectious diseases; (c) the prohibition of the use of preservatives such as the benzoate of soda; and (d) the prevention of the admission into interstate commerce of unclean and offensive waste products which now by the use of such preservatives are branded as food stuffs and sold as such to the people.

RESOLVED FURTHER: That the following resolutions adapted from the New York Medical Society are hereby endorsed:

1. That this Society respectfully requests the President of the United States

and the Secretary of Agriculture to secure an amendment to the National Food and Drugs Act by which the use of antiseptic drugs in canned fruits and vegetables and in all preparations from fruits and vegetables designed for human consumption shall be prohibited, and,

2. That the inspection of the commercial food kitchens of the United States by government officials, for the purpose of insuring the use of sound materials, cleanliness of methods, and compliance with the law concerning adulterants and the use of drug preservatives, be made obligatory.

3. That Congress be and is hereby urgently requested to institute an investigation with reference to determining in what additional particulars the Food and Drugs Act, as now construed and enforced, fails to afford adequate protection to the American people.

4. That the Society respectfully urges on Congress and the Senate of the United States the organization, under a single bureau or department to be known as "The Bureau or Department of Public Health" of all the offices and agencies now having duties in any way connected with the preservation of the public health except only those offices having to do with the protection of the health of the army and navy.

5. That the Arizona Medical Association commend the daily newspapers and individuals who have taken a stand against artificial food preservation, and give them added encouragement to continue this fight.

RESOLVED FURTHER: That the Arizona Medical Association hereby specifically endorses the principle of Senate Bill 6049 introduced by Senator Owen providing for the establishment of a National Department of Health with the Secretary at its head.

(Signed) E. S. GODFREY,  
C. E. YOUNT,  
J. H. LACY, Committee.

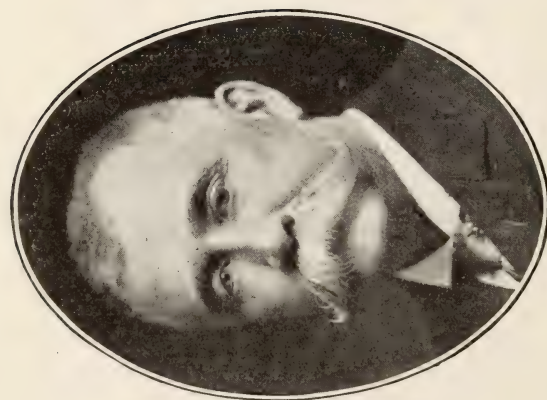
## OF GENERAL INTEREST

### THE KURTZ-LASHER DINNER.

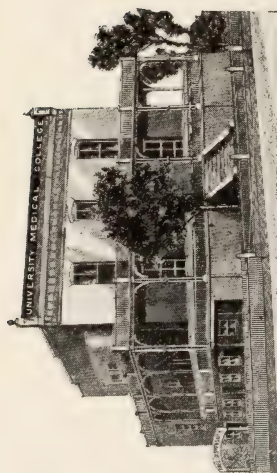
The testimonial dinner tendered Dr. Joseph Kurtz and Dr. George W. Lasher on their retirement as professors of the College of Medicine was so unusual as to well merit a detailed account, as a matter of historical record, in the PRACTITIONER.

Much credit is due the Committee of Arrangements, consisting of Drs. Edmond M. Lazard, Chairman; W. R. Molony, Secretary; Raymond G. Taylor, W. W. Beckett and John C. Herbert.

After doing justice to an excellent menu, the following toast list was gone through: President of the evening, Dr.



G. W. LASHER, M.D.



THE COLLEGE OF MEDICINE, U. S. C., IN 1887.



JOSEPH KURTZ, M.D.



COLLEGE OF MEDICINE, U. C., LOS ANGELES DEPARTMENT, 1910.

W. Jarvis Barlow; Toastmaster, Dr. Walter Lindley; The First Dean, Dr. J. P. Widney; The First Faculty, Dr. J. H. Utley; The First Class, Dr. W. W. Beckett; Our Honored Guests, Dr. Frank Bullard; Words of Appreciation (impromptu), Dr. George W. Lasher; The Alumni, Dr. Jos. M. King; The Graduating Class, Dr. O. I. Tower; Reminiscences, Dr. J. Lee Hagadorn; Presentation, Dr. John C. Ferbert; Presentation, Dr. Edmond M. Lazard; Response, Dr. Joseph Kurtz.

Dr. Frank Bullard, a member of the first class of the College of Medicine, paid a tribute to his retiring preceptors in the following verses:

DR. JOSEPH KURTZ.

You're a diamond in the rough,  
     Our Joe,  
 Still you sparkle quite enough,  
     Our Joe.  
 For your kindly, jovial face,  
 Holds within our hearts a place,  
 May the gods increase your race—  
     Our Joe.  
 Who always answers duty's call,  
     Our Joe,  
 And never thinks of pay at all,  
     Our Joe.  
 Working for another's weal,  
 I believe he'd rather heal,  
 Than to eat a good, square meal,  
     Our Joe.  
 He's not got a dainty touch,  
     Our Joe,  
 He don't care for "seeming" much,  
     Our Joe.  
 If you're sick and down and out,  
 He's a helper good and stout,  
 On the level—never doubt,  
     Our Joe.  
 Bluff and honest, strong and true,  
     Our Joe,  
 Here's drinking a toast to you,  
     Our Joe.  
 When you cross o'er the ferry,  
 May you there be just as merry,

As you've made us all feel cheery,  
     Our Joe.

DR. GEORGE W. LASHER.

When we are groping in the haze,  
 Of some dark diagnostic maze,  
 Who helps us out with words of praise?  
     LASHER!

When one is in an awful mix,  
 And thinks that naught can mend the fix,  
 Who has the trumps to take the tricks?  
     LASHER!

When one essays to make a "lap,"  
 And finds he's caught in some hard trap,  
 Who has a remedy on tap?  
     LASHER!

If any of your folk are ill,  
 And you're afraid of your own pill,  
 Who can the place of Doctor fill?  
     LASHER!

And if you have some needy soul,  
 All mangled up, who'll make him whole,  
 And never charge a cent for toll?  
     LASHER!

Suppose you had a pain inside,  
 And knew you must be opened wide,  
 When facing death, you would decide  
     —on

LASHER!

At the close of Dr. Bullard's remarks, all united in singing the following stanzas, which were also written by Dr. Bullard:

"JOSEPH KURTZ."

(Tune of Clementine.)

Five and twenty, years a plenty,  
 Five and twenty in our school,  
 How to cut us you have taught us,  
 How to cut us up, by rule.

CHORUS:

O Professor, O Professor,  
 O Professor Joseph Kurtz,  
 If you've left the school forever,  
 We can't tell you how it hurts!



Cut a leg off, saw a peg off,  
 Cut a leg off, all by Hoyle;  
 Make a flap, sir, or a lap, sir,  
 Set a limb or lance a boil.

Set a fracture or contracture,  
 Set a fracture of your arm;  
 Mend your noses, fix your toeses,  
 Save you from all other harm.

If you've appendi—if you've appendi—  
 If you've appendicitis had,  
 He'll save your life, sir, with a knife, sir,  
 And cut out the blooming gad.

#### LASHER'S MOLINE.

(Tune of "My Merry Oldsmobile.")

My dear Dean, I've a new Moline,  
 Which I love as much as a girl,  
 A perfect queen is my gas machine,  
 And it keeps my head in a whirl.  
 I can't bestow time on both, you know,  
 One or the other would come to woe.  
 There's a terrible fear when I try to  
 steer,  
 That the thing will not go slow!

#### CHORUS:

Come away with me, dear Dean,  
 In my merry new Moline,  
 Down the road of life we'll creep,  
 (Do not think that I'm asleep)  
 To the hospital serene,  
 We will ride in stately mien,  
 You may go as slow as you like with  
 me,  
 In my merry new Moline.

How funny you feel in a new mobile,  
 When you steer the thing alone!  
 You want to squeal and you can't con-  
 ceal

The fear that makes you groan!  
 Perhaps the thing will take wild wing,  
 And into the ditch your body fling!  
 So I go on the low or with sparker slow,  
 The while I softly sing—

[Chorus.]

So I must shirk my college work,  
 To run my new Moline.  
 It starts with a jerk, and dangers lurk,

Within this gas machine!  
 Perhaps for gall it won't go at all,  
 Perhaps 'twill make my funeral.  
 It holds control o'er my poor soul,  
 That is tyrannical!  
 [Chorus.]

From the *Herald's* account of the dinner we take the following excerpts:

Two hundred graduates and former members of the faculty of the Los Angeles Medical Department of the University of California gave a testimonial dinner at Levy's last night to Dr. Joseph Kurtz, professor of orthopedic surgery, and Dr. George W. Lasher, professor of surgery. The guests of honor were the members of the original faculty and the class of young medicos that received diplomas at the graduating exercises held yesterday morning in the College of Medicine.

After having been connected with the college for twenty-five years, Dr. Kurtz and Dr. Lasher tendered their resignations during the fore part of the week, but as both intend remaining in the city they let it be known that they will lend aid to keep the college up to its present high standard.

Dr. W. Jarvis Barlow was president of the evening, while Dr. Walter Lindley officiated at toastmaster. Dr. Barlow, who is a dean of the college, thanked "the two men who have weathered the storm for twenty-five years and given their time, brains and income to better the medical profession in Southern California." He also welcomed the living members of the original faculty and the graduating class.

Toastmaster Walter Lindley was heartily applauded when he informed the assemblage that Dr. Kurtz and Dr. Lasher would devote their time to establishing a hospital for the poor, this hospital to be controlled by the university. Each speaker praised the retiring faculty members for the task they are about to undertake, for it was the

opinion of all that a hospital where poor people may obtain treatment free is an absolute necessity in Los Angeles.

#### DEAN WIDNEY SPEAKS.

Dr. J. P. Widney, the first dean of the college, was then introduced, and when the venerable, white-haired man arose each physician drank a standing toast in his honor. After fondly glancing around the room and scanning the faces of the college graduates, Dr. Widney said:

"Way back in the early 80's I looked forward to the time when I would be present at a gathering of this kind, a gathering composed of the men of our college. I say 'our' college because I have always felt it to be yours and mine. In the early days it was no easy task to work our way upward, but through diligent work on the part of all those interested in the school we finally attained success, and now the Medical University of Southern California is recognized as being among the foremost of its kind in the United States."

Dr. J. H. Utley spoke on "The First Faculty," and the other speakers and their themes were: Dr. W. W. Beckett, "The First Class;" Dr. Frank Bullard, "Our Honored Guests;" Dr. J. M. King, "The Alumni;" Dr. O. I. Tower, "The Graduating Class;" Dr. J. Lee Hagadorn, "Reminiscences."

The members of the graduating class were Charlotte M. Brown, Mark G. Gates, Thomas E. Grubbs, Lyle G. McNeil, Olga Murray, Jean M. Roberts, Jeffe W. Stenger, Ora I. Tower and John W. Utter.

#### THE FACULTY.

The members of the first faculty are:

J. P. Widney, A.M., M.D., dean and professor of medicine; W. G. Cochran, M.D., professor of clinical medicine; Joseph Kurtz, M.D., professor of clinical surgery; W. LeMoyné Wills, M.D., professor of anatomy; George W.

Lasher, M.D., professor of surgical anatomy, histology and microscopy; H. S. Orme, M.D., professor of materia medica and therapeutics; Walter Lindley, M.D., professor of obstetrics; F. T. Bicknell, M.D., professor of gynecology; J. H. Utley, M.D., professor of physiology; W. B. Percival, M.D., professor of chemistry and toxicology; E. A. Follansbee, M.D., professor of diseases of children; H. Nadeau, M.D., professor and chief of clinics.

Those participating in last evening's festivities were:

Mattison, E. C.	Townsend, V. R.
Bancroft, I. R.	Cahen, Ed.
Kiger, W. H.	Cook, C. W.
Alexander, E. B.	Eversole, H. C.
Dudley, W. H.	Finley, T. G.
Burt, L. W.	Furusawa, —
MacLeish, A. C.	Hastings, S. N.
Morris, Margaret	Holleran, James
Frank, M. A. S.	Horstman, E. H.
Hull, F. E.	Huggins, W. L.
Huntoon, Harry A.	Jones, A. H.
White, F. G.	O'Brien, J. J.
Hill, Walter B.	Pascoe, Elmer
Foster, C. F.	Ross, Karl
Brown, F. H.	Simonds, Paul
Hayes, Charles H.	Ellyott, T. H.
Hayes, Alice	MacGowan, Granville
Bennett, —	Brainerd, E. G.
Morton, L. B.	Moore, M. L.
Downs, A. J.	Kurtz, Carl
Scholl, A. J.	Barlow, W. Jarvis
Godin, Arthur	Edwards, W. A.
Cole, George L.	Kress, George H.
Keep, Frederick	Barber, D. C.
Whitman, C. H.	Bryant, E. A.
Cochran, Guy	Pottenger, F. M.
Beckett, W. W.	Keifer, H. A.
Bradley, E. R.	Richardson, W. W.
Bullard, Frank	Powers, L. M.
Ellis, H. Bert	Hutchinson, Randall
Vale, A. Z.	Moore, Ross
Cook, John B.	Fulton, Dudley
Murphy, C. W.	Frick, Donald
Bresee, Paul	Wiley, E. H.
Hagadorn, Mary	Millsfough, W. P.
Hagadorn, J. Lee	Anderson, C. N.
Tyroler, A.	Smith, Bernard
Sweet, Earl	Kelsey, A. L.
Wheeler, L. N.	Alden, Elliot
Williams, Ralph	Allen, C. L.
King, Joseph M.	McArthur, W. T.
Walrath, George B.	Johnson, D. V. K.
Bresee, Melvin	Cunningham, Robert
Caven, C. L.	Hallister, John C.
Caven, E. R.	Moharry, J. S.
Hammond, Nettie	O'Reilly, T. W.
Rogers, J. J.	Reed, W. J.
Taylor, Raymond E.	Atkinson, Charles E.
Jackson, A. H.	Chaffin, R. C.
Prigge, Henry	Elliott, C. C.
Seabolt, Gertrude	Day, Robert V.
Sundin, B. O.	Dennis, Mary E.
Wright, C. A.	Ferbert, John C.
Cowan, Ray	Lazard, E. M.
Duncan, Rex	Libby, Arthur A.
Scott, A. J.	Rogers, Homer

Coffee, Titian, J.  
 McGarry, J. A.  
 Palette, E. W.  
 Pierce, G. W.  
 Smith, A. M.  
 Wilde, Kate  
 Anton, F. L.  
 Garrett, E. H.  
 Kirkpatrick, J. L.  
 Quint, S. J.  
 Shultz, M. A.  
 Skeel, Donald  
 Stearns, W. H.  
 Stinchfield, H. C.  
 Bewley, M. H.  
 Dunsmoor, J. C.  
 Dunsmoor, Mamie  
 Hall, James  
 Laubersheimer, Geo.  
 Loomis, M. L.  
 Mayne, W. H.  
 Myers, T. C.  
 Reynolds, R. W.  
 Brown, J. F.  
 Chase, R. E.  
 Dillon, E. T.  
 Gibbs, R. S.  
 Molony, William R.  
 Morton, F. L.  
 Pahl, P. C. H.  
 Reiche, Cecelia  
 Roth, L. J.

Stafford, O. R.  
 Armstrong, M. M.  
 Fielding, George A.  
 Hay, E. O.  
 Leonard, E. L.  
 Pettes, R. S.  
 Wilson, A. P.  
 Allan, J. T. M.  
 Dawley, C. G.  
 Ferry, Frank  
 Jenkins, J. E.  
 Jenks, C. A.  
 McQuiston, C. E.  
 Yerxa, Charles  
 Garcelon, H.  
 Hayes, N. S.  
 Huff, L. J.  
 McArthur, D. D.  
 Pottinger, J. A.  
 Thieme, D. A.  
 Moore, A. W.  
 Pratt, A. C.  
 Syer, W. H.  
 Tibbetts, H. B.  
 Voorheis, H. M.  
 Earnhart, N.  
 Chamberlain, H. H.  
 Crowell, I.  
 Decker, C. W.  
 Fairchild, F. D.  
 French, J. R.

Several of the physicians were accompanied by their wives.

### THE LATE DR. J. G. BAILEY.

The death of Joseph Goffin Bailey, M.S.M.D., who was found dead on his porch at 10:30 o'clock Friday night, April 29, removes from the profession one of the most conscientious and brilliant of the medical fraternity of Southern California. Although Dr. Bailey had been under the care of a Los Angeles specialist on heart trouble, he did not give up his daily routine, and the morning of the day on which he passed away he went to Orange to visit a patient. In the afternoon he went to Los Angeles to consult his physician, who told him that he had myocarditis and cautioned him against undue exertion. He returned to Santa Ana, dined with his wife and daughter, and went to a drug store to have a prescription filled. When Miss Bailey noticed the light in her father's office and made investigation late that night, she found him on

the porch, where he had dropped dead when fitting the latchkey to the door.

Dr. Bailey was the eldest son of Sir James Bailey of England. He came to Canada when a mere lad, accompanying his parents. He was educated in Ontario, taking a degree of M.S. at the University of Toronto. He then entered the Upper Canada Military College, and was commissioned captain when he finished his training. He next entered Magill Medical College in Montreal and was graduated from there with high honors at the head of his class. Later he took post graduate courses in London, England, and from there went to the Continent of Europe where he entered the hospitals to acquire experience in the profession that he loved and to which he gave his entire life.

In 1871 Dr. Bailey married Miss Mary H. Willson, daughter of Rev. and Mrs. Hugh H. Willson of Canada. He went to Buffalo, N. Y. and opened an office, soon getting a large practice. After two years he moved to Port Huron, Michigan, where he had an immense clientele and from there, lured by the call of California, he came to Santa Ana, arriving in 1875 and remaining until his death.

He was at one time health officer of Orange County; President of the Society for the Prevention of Cruelty to Animals; an officer of the Humane Society, and held other important offices. He was a member of Guantlet Lodge, Knights of Pythias, Los Angeles, that lodge sending a magnificent wreath to his funeral. The obsequies were attended by rich and poor, an immense throng filling the large house to its utmost capacity. Never in the history of Santa Ana have more beautiful flowers been sent to a private funeral and the profusion was as great as the beauty.

A FRIEND.



## THE OWEN BILL FOR A NATIONAL DEPARTMENT OF HEALTH.

On February 1, 1910, Senator Robert L. Owen, of Oklahoma, introduced the following bill in the Senate of the United States:

*"Be it enacted, etc.,* That there is hereby established a department of public health under the supervision of the secretary of public health, who shall be appointed by the President a Cabinet officer, by and with the consent of the Senate, at a salary of \$12,000 per annum, with like tenure of office of other Cabinet officers.

"SEC. 2. That all departments and bureaus belonging to any department, excepting the Department of War and the Department of the Navy, affecting the medical, surgical, biological or sanitary service, or any questions relative thereto, shall be combined in one department, to be known as the department of public health, particularly including therein the Bureau of Public Health and Marine-Hospital Service, the medical officers of the Revenue-Cutter Service, the medical referee, the assistant medical referee, the surgeons and examiners of the Pension Office; all physicians and medical officers in the service of the Indian Bureau or the Department of the Interior, at old soldiers' homes, at the Government Hospital for the Insane, and the Freedman's Hospital and other hospitals of the United States; the Bureau of Entomology, the Bureau of Chemistry and of Animal Industry of the Department of Agriculture; the hospitals of the Immigration Bureau of the Department of Commerce and Labor; the emergency relief in the Government Printing Office, and every other agency of the United States for the protection of the health of the people of the United States, or of animal life, be, and are hereby transferred to the department of

public health, which shall hereafter exercise exclusive jurisdiction and supervision thereof.

"SEC. 3. That the official records, papers, furniture, fixtures, and all matters, all property of any kind or description pertaining to the business of any such bureau, office, department, or branch of the public service is hereby transferred to the department of public health.

"SEC. 4. That the secretary of public health shall have supervision over the department of public health, and shall be assisted by an assistant secretary of public health, to be appointed by the President, by and with the advice and consent of the Senate, at a salary of \$6,000 a year, with such duties as shall be prescribed by the secretary not inconsistent with law.

"SEC. 5. That the secretary of public health shall be authorized to appoint such subordinates as may be found necessary. There shall be a chief clerk appointed, at a salary not to exceed \$3,000 a year, and such other clerks as may from time to time be authorized by Congress.

"SEC. 6. That the officers and employees of the public service transferred to the department of public health shall, subject to further action by Congress, receive the salaries and allowances now provided by law.

"SEC. 7. That it shall be the duty and province of such department of public health to supervise all matters within the control of the Federal Government relating to the public health and to diseases of animal life.

"SEC. 8. That it shall gather data concerning such matters; impose and enforce quarantine regulations; establish chemical, biological, and other standards necessary to the efficient administration of said department; and give due publicity to the same.

"SEC. 9. That the secretary of public health shall establish a bureau of biol-

ogy, a bureau of chemistry, a bureau of veterinary service, a bureau of sanitary engineering, reporting such proposed organizations to Congress for suitable legislation relative thereto.

"SEC. 10. That all unexpended appropriations and appropriations made for the ensuing year shall be available on and after July 1, 1910, for the department of public health, where such appropriations have been made to be used by any branch of the public service transferred by this act to the department of public health. It shall be the duty of the secretary of public health to provide, on proper requisition, any medical, sanitary, or other service needed of his department required in another department of the Government.

"SEC. 11. That any other department requiring medical, surgical, sanitary, or other similar service shall apply to the secretary of public health therefor wherever it is practicable.

"SEC. 12. That all officers or employees of the Government transferred by this act to the department of public health will continue to discharge their present duties under the present organization until July 1, 1910, and after that time until otherwise directed by the secretary of public health or under the operation of law.

"SEC. 13. That all laws or parts of

laws in conflict with this act are hereby repealed."

It is certainly very gratifying to find a measure which was endorsed last year by President Taft and which we have often contended would promote the health of the nation as nothing else could, in a fair way of being enacted into law. It is especially interesting to note the enthusiastic advocacy of this movement by a United States Senator. How very little, so far, have our legislators appreciated the importance of this subject; and how often have we attempted and ignominiously failed even to interest our national law makers in matters concerning public health! Nothing less than a Department of Public Health, in close touch with the state Health Departments and its chief a Cabinet officer, could acquire that great efficiency and be granted that complete public confidence in its work which is so necessary to the best health interests of the nation. At present there are, we understand, eight Government bureaus, dealing with public health affairs, disconnected and often nullifying and hampering the work of another, because there is no responsible head over them all. We congratulate Senator Owen and wish him the fullest measure of success in the cause which he has so valiantly and ably espoused.—*Post Graduate*.

## BOOK REVIEWS

**SURGICAL DIAGNOSIS.** By Daniel N. Eisendrath, M.M., Professor of Surgery in the Medical Department of the University of Illinois (College of Physicians and Surgeons). Second revised edition. Octavo of 885 pages, with 574 original illustrations, 25 in color. Philadelphia and London. W. B. Saunders Company.

The revised edition of this admirable work, the second edition of which was called for two years after the first, contains the very latest and newest methods of surgical diagnosis, and is a hand book of superior character. Some of

the sections have been entirely rewritten. Important changes have been made in the chapter on cerebral localization to conform with recent investigations in this important field. The section on acute abdominal conditions and the added text and illustrations of diverticulitis add very much to the attractiveness of the work. The illustrations throughout are excellent and to a large extent photographic, and give the work added interest and value on

account of their fidelity to precise pathologic conditions. There are numerous colored plates which add very much to the illustrative feature of the work. Dr. Eisendrath has made a most valuable contribution to surgical literature in the comprehensive volume which he has given us, and each edition will doubtless contain the latest and best of the knowledge on the subject of surgical diagnosis.

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**POCKET THERAPEUTICS AND DOSE-BOOK.** By Morse Stewart, Jr., B.A., M.D. Fourth Edition, rewritten. Small 32mo of 263 pages. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$1 net.

This fourth edition is thoroughly up-to-date and fulfills the purpose for which it was intended.

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**PRESCRIPTION WRITING AND FORMULARY.** By John M. Swan, M.D., Associate Professor of Clinical Medicine, Medico-Chirurgical College of Philadelphia. 32mo of 185 pages. Philadelphia and London: W. B. Saunders Co., 1910. Flexible leather, \$1.25 net.

This is one of the best of its kind and really seems almost indispensable to the student and the very young practitioner. *Multum in parvo* never applied more aptly than in these two books.

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**THE MEDICAL EPITOME SERIES.** Diseases of the Skin. A Manual for Students and Practitioners by Alfred Schalek, M.D., Professor of Dermatology, University of Nebraska; formerly Assistant Professor of Dermatology, Rush Medical College. Member of the American Dermatological Association; Attending Dermatologist to the Nebraska Methodist, Clarkson Episcopalian, Douglas County, Immanuel, Swedish Mission Hospitals. Consulting Dermatologist to the Child Saving Institute. Second Edition, thoroughly revised. Illustrated with 47 engravings. Lea & Febiger. Philadelphia and New York. Cloth \$1.

The excellence of this concise manual as a means of reviewing the subject in preparation for examinations or of refreshing the memory on unusual points, is attested by the absorption of several printings of the first edition and now by the demand for a complete revision. As heretofore the volume is

a brief presentation of the practical essentials of dermatology which admirably supplements the larger text-books and reference works, though not intended to fill their place. In the treatment of Dermatitis Venenata—**POISON IVY**, "**POISON OAK**"—the author advises "soothing lotions, such as equal parts of black wash and lime water, followed by zinc oxide ointment. Washing should be avoided during the acute stage. The blebs should be punctured and the contents pressed out."

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**AN INDEX OF SYMPTOMS WITH DIAGNOSTIC METHODS.** By Ralph Winnington Leftwich, M.D. Late Assistant-Physician to the East London Children's Hospital. Author of "Syphonage in the Large Intestine." *Nihil humani a me alienum puto.* Fourth edition. New York, William Wood and Company. MDCCCX. Price \$2.25.

This is distinctly *Multum in Parvo*. There are four hundred fifty-one pages and each page is full of facts worth knowing and valuable for ready reference. There are chapters showing what is indicated by various conditions of the Skin, Temperature, Pulse, Hearing and fifty other subjects. As demonstrating the plan we quote the indications of the various conditions of the pupils:

### THE PUPILS.

The iris regulates the amount of light admitted, shuts off the side rays, and, during accommodation, supports the action of the ciliary muscle. The dilating or radiating fibres are supplied by the cervical sympathetic, the contracting or circular by the third nerve. When the pupils are unequal ("*anisocoria*"), the less mobile is usually the abnormal one. Normally the pupil should be 4 mm. in diameter.

### PUPILS DILATED (MYDRIASIS). ONE DILATED.

Aneurysm of aorta  
Aneurysm of innominate  
Cataract  
Choroid disease  
Glaucoma  
General paralysis  
Lens, dislocation of



Paralysis of third nerve  
Pleural effusion same side  
Sympathetic stimulation  
Tubercular meningitis  
Tumor of neck  
Tumor of brain

**BOTH DILATED.**

Amaurosis  
Anaemia  
Aortic regurgitation  
Asphyxia  
Acute yellow atrophy  
Anaemia of brain  
Alcoholic coma  
Apoplexy (profound)  
Concussion of brain  
Diphtheritic paralysis  
Dyspnoea  
Dementia, acute primary  
Emotion, strong, esp. fear  
Epilepsy  
Glaucoma  
Hydrocephalus  
Hysteria  
Melancholia  
Myelitis, acute cervical portion  
Myopia  
Meningitis, simplex  
Meningitis, tubercular  
Nausea  
Neurasthenia  
Nitrous oxide  
Pain, acute  
Ptomainism  
Syncope  
Sunstroke  
Stupor  
Trance  
Thrombosis, cerebral  
Action of—  
Aconite  
Alcohol  
Belladonna  
Conium  
Chloroform  
Chloral  
Cocaine  
Cyanides  
Duboisine  
Hyoscyamus  
Stramonium  
Tobacco

**PUPILS CONTRACTED (MYOSIS).  
ONE CONTRACTED.**

Aneurysm of aorta  
Amaurosis of spinal origin  
Cerebral hemorrhage  
General paralysis  
Klumpke's paralysis  
Locomotor ataxia  
Migraine  
Paralysis of sympathetic  
Syringomyelia  
Tumor of neck

**BOTH CONTRACTED.**

Anaemia of brain  
Apoplexy  
Cerebral hyperaemia  
Cerebral irritation  
Concussion of brain  
Compression of brain  
Caries, cervical  
Delirium tremens  
Hemorrhage into pons,  
Cerebellum or Ventricle  
Haematoma of Dura Mater  
Iritis adhesions  
Locomotor Ataxia  
Meningitis  
Meningitis, cerebro spinal

Morphinism  
Mania  
Mitral stenosis  
Photophobia  
Retinitis  
Sunstroke  
Sleep, Healthy  
Tubercular meningitis  
Typhus  
Action of—  
Aconite  
Opium  
Physostigma  
Suprarenal extract

**MARGIN IRREGULAR.**

General paralysis  
Oval (Berger's Sign)  
Iritis, rheumatic  
Iritis, syphilitic  
Locomotor ataxia  
Oval (Berger's Sign)  
Synchia, anterior  
Trauma  
Notched and dilated from rupture of  
pupillary edge.

**IRIDODONESIS (IRIS TREMULOUS)**  
Dislocation of lens, partial or complete

**PUPIL REFLEXES.**

In examining the pupils for a reflex, care must be taken that the effects of light and accommodation do not clash. Thus the lamp should be held about a yard away for the light reflex and the eyes must be turned away from the light for the accommodation reflex.

**SLUGGISH TO LIGHT.**

The light reflex is ascertained by covering the eyes with the hand, a bright light being in front; then suddenly removing one hand, the rapidity with which the pupil contracts.

Asphyxia  
Apoplexy  
Atrophy of brain  
Cataract  
Coma  
Cerebral tumor  
Compression of brain  
Epilepsy  
Hysteria  
Hydrocephalus  
Hydrocephalus, spurious  
Meningitis  
Ophthalmoplegia interna  
Optic atrophy  
Optic neuritis  
Paralysis of third nerve  
Retinitis  
Syringomyelia  
Tumor of brain

**GOWER'S SIGN.**

Intermittent and abrupt oscillation of the iris under the influence of light.  
Locomotor ataxia, very early

**HIPPUS.**

Rhythmical oscillation of the pupil on exposure to light independently of respiration.  
Chorea  
Disseminated sclerosis  
Epilepsy  
General paralysis  
Hysteria

**Leptomeningitis****Meningitis****Neurasthenia****Rheumatism, acute****Spasmus nutans**

Respiratory oscillation is well seen in Cheyne-Stoke's breathing.

**SANGER'S PUPIL REACTION.**

The light reflex returns after a short stay in the dark. Present in cerebral syphilis. Absent in locomotor ataxia.

**WERNICKE'S SIGN.**

If the pupils react when the light falls upon the blind half of the retina the lesion is posterior to the corpora. If it does not react the lesion is anterior. Hemianopsia.

**PARALYSIS OF ACCOMMODATION (ACCOMMODATION REFLEX).**

This is ascertained by directing the patient to look first at a distant object and then at the surgeon's finger, which is held six inches away. The result should be contraction and convergence. The accommodation muscles are all supplied by the third nerve.

**Atrophine****Blow on eyeball****Diphtheritic paralysis****Diabetes****Exposure to cold****Influenza****Neuritis****Paralysis of third nerve****Ciliary muscle****Syphilis****ARGYLL-ROBERTSON PUPIL.**

The pupils react to accommodation but not to light. It nearly always indicates previous syphilis (Gowers). The reverse condition is sometimes present when the ciliaris is paralyzed.

**Ataxic paraplegia****Choroiditis****Diabetic sclerosis****General paralysis of insane****Hemiplegia****Heredo-cerebellar ataxia****Hydrocephalus****Locomotor ataxia****Lead poisoning****Ophthalmoplegia, nuclear****Progressive muscular atrophy****Senile brain atrophy****Syphilitic meningitis**

Argyll-Robertson Pupil is present temporarily in the acute infections.

**BECHTEREW'S PUPIL REFLEX.**

The pupil dilates to light (rare)

**General paralysis****Locomotor ataxia****WESTPHAL'S PUPIL PHENOMENON.**

The examiner holds the lid forcibly open while the patient tries to close the eye. The pupils then contract.

**General paralysis****Hysteria****Locomotor ataxia****PILTZ'S SIGN.**

When the lids fail to close, the pupils contract.

**Epilepsy, 25 per cent.****General paralysis****Locomotor ataxia****GIFFORD'S PUPIL REFLEX.**

On trying to close the lids against the will of the patient the pupils contract. General paralysis  
Locomotor ataxia  
Partial blindness, when from retinal or optic nerve lesions

**CUTANEOUS PUPIL REFLEX.**

Pinching the skin of the cheek or neck causes dilatation of the pupil.

**LOST.****Adhesions****Cervical cord lesion****Cervical sympathetic lesion****General paralysis****Glaucoma****Locomotor ataxia****BUNKE'S PSYCHIC PUPIL.**

Dilatation in response to physical stimuli.

**Absent in****Dementia praecox****LOEWI'S SYMPTOM.**

Adrenalin causes dilatation of the pupils (based on experimental removal of the pancreas in animals)

**Pancreatitis****Pancreatic diabetes****TENSION.**

The surgeon presses on the eyeball through the upper lid, the patient looking down.

Degrees are expressed by + or -1, 2, or 3

**INCREASED OR T—****Detached retina****Loss of vitreous humor**

**LIGHT THERAPEUTICS.** A Practical Manual of Phototherapy for the Student and the Practitioner. With special reference to the Incandescent Electric Light Bath. By J. H. Kellogg, M.D., Author of "Rational Hydrotherapy," "The Art of Massage," etc. Member of the British Gynecological Society, the International Periodical Congress of Gynecology and Obstetrics; American and British Association for the Advancement of Science, the Societe Hygiene of France, American Society of Microscopists, American Climatological Society, American Medical Association, Michigan State Medical Society, Superintendent of the Battle Creek (Michigan) Sanitarium, Battle Creek, Michigan. The Good Health Publishing Co., Publishers of Therapeutic Manuals.

In this interesting volume Dr. Kellogg puts forth many ideas with which the profession generally have not become familiar.

The instructions, in regard to each form of bath, are clear and definite. The illustrations are also of practical value.

## MISCELLANEOUS—THERAPEUTICAL HINTS

### A BROAD SYSTEM OF TRAINING.

The management of the California Hospital, Los Angeles, endeavors, while teaching the pupils and post-graduates to be capable nurses, at the same time to keep them posted in current events and in general literature. For this purpose a daily paper is prepared each morning and is read to the nurses at luncheon. It contains a brief resumé of the most important news in the morning papers. In order not to be irksome the reading of this paper never takes over ten minutes. Attention is always paid to noted dramatic, literary, and scientific events. The seniors were recently taken to the stereopticon lecture on Halley's comet given by an able astronomer. It is not the purpose of this California Hospital Training-School to develop a one-idea sisterhood, but rather to send out broad, strong women who will be ready to take their positions in whatever communities their lots may be cast, whether as heads of households of their own, as heads of institutions, or as private nurses.

April 23d, Shakespeare's birthday was celebrated and each one of the one hundred and ten nurses was given a copy of the picture entitled, "The Shakespearean Portraits," as a souvenir of the occasion. Another way in which benefit is derived from this daily paper and these extra nursing exercises is that it gives the nurse something to talk to her patients about besides Surgery, Sickness, and Child-birth. Intense farming is good for the farmer, but intense nursing—in the opinion of the California Hospital management—is good for neither patients nor nurses.

It is always the constant aim of the California Hospital to discourage gossip. The following New Ten Commandments they have printed ten thousand at a time and constantly circulated

among the patients, their friends and the nurses, and last but not least, among the attending doctors:

### NEW TEN COMMANDMENTS FROM THE CALIFORNIA HOSPITAL

#### *Thoughts For All*

"1. I will not permit myself to speak while angry. And I will not make a bitter retort to another person who speaks to me in anger.

"2. I will neither gossip about the failings of another nor will I permit any other person to speak such gossip to me. Gossip will die when it cannot find a listener.

"3. I will respect weakness and defer to it on the street car, in the department store and in the home, whether it be displayed by man or woman.

"4. I will always express gratitude for any favor or service rendered to me. If prevented from doing it on the spot, then I will seek an early opportunity to give utterance to it in the most gracious way within my power.

"5. I will not fail to express sympathy with another's sorrow, or to give hearty utterance to my appreciation of good works by another, whether the party be friendly to me or not.

"6. I will not talk about my personal ailments or misfortunes. They shall be one of the subjects on which I am silent.

"7. I will look on the bright side of the circumstances of my daily life, and I will seek to carry a cheerful face and speak hopefully to all whom I meet.

"8. I will neither eat nor drink what I know will detract from my ability to do my best work.

"9. I will speak and act truthfully, living with sincerity toward God and man.

"10. I will strive to be always prepared for the very best that can happen to me. I will seek to be ready to seize



the highest opportunity, to do the noblest work, to rise to the loftiest place which God and my abilities permit."—*Nurses Journal of the Pacific Coast.*

### ELIMINATE THE RAT.

Experiment shows that it takes about 60 cents' worth of wheat to feed a single rat for a year. The eggs, cheese, young chickens, and squab, which it prefers to wheat, increase proportionately the cost of its board. Even if there were no more rats in the United States than there are human beings, and if each rat consumed and spoiled only 25 cents' worth of food in a year, the total cost in a decade would be staggering. As a matter of fact, the rat population of most communities is at least five times that of the human. To this, moreover, must be added as many more mice; for the mouse is really a rat.

There are, then, probably five hundred million rats in the United States, not including mice and the various wild rats that for the most part keep out of man's way. This means a yearly cost for food alone, of \$100,000,000. To this must be added the damage they do in obtaining material for their nests.

The total loss is largely a matter of guess work. A reasonable and semi-official estimate however, gives for Denmark, \$3,000,000 annually; for France, \$40,000,000; for Germany, \$50,000,000; for Great Britain, \$73,000,000; and for the United States, at least \$100,000,000, of which \$15,000,000 is from fires. Fifteen dollars a month is a loss reported from a single farm. No wonder that the United States Department of Agriculture in this country, in Europe L'Association Internationale pour la Destruction Rationnelle des Rats, and a similar society in England are trying to rouse the public to an appreciation of the gravity of this problem.—McClure's.

The essentially devitalizing influence of the morbid agent in Typhoid, Grippe,

## As Surgeons' Hands

are often irritated, cracked and eroded by powerful antiseptics like carbolic acid, corrosive sublimate, etc., any effective means of relief cannot fail to be gratifying.

## K-Y Lubricating Jelly,

liberally applied to the hands after "washing up" following an operation, softens and soothes the skin and goes far to counteract the usual irritation.

Sample tube on request.

**VAN HORN & SAWTELL**

NEW YORK

and

LONDON, ENG.

Pneumonia, etc., is exerted primarily and principally upon the blood itself and a readily tolerable, promptly assimilable and thoroughly efficient hematinic, such as Pepto-Mangan (Gude), is always serviceable and valuable. As Pepto-Mangan (Gude) is palatable and non-irritant, it exercises no disturbing effect upon appetite or digestion—in fact it increases the desire for food and by its general tonic action, assists in its absorption and assimilation. Its freedom from constipating effect also renders it especially suitable in the restorative treatment of the convalescent invalid.

### EL REPOSO.

The Pasadena News says:

Fourteen artistic and novel bungalows have just been completed at El Reposo, the health resort established some months ago for victims of tuber-

culosis. These were constructed at Seattle after the fashion of the "portable" house, but were made after a plan of some originality provided by Mrs. Haviland Lund, managing director at El Reposo. Shipped here almost ready to put up they have been erected around the main sanitarium on the foothills. Some of them have two rooms and a bath with dress closets, some one room and bath and closets, and all are surrounded by verandas which give exquisite views in every direction. Each house has a double roof with a six-inch air space so arranged under the eaves that the opening (which is screened) can never be closed. All the sides of the building are canvas on frames which are adjustable from the inside by a simple arrangement of rope and pulley like reefing a sail. They open out, forming awnings, yet when closed fit perfectly weather tight.

The rooms are furnished attractively with rustic old hickory tables and chairs, white iron beds and white enamel bureaus.

These new cottages are grouped about the main building, but recently one hundred and twelve acres of the El Reposo holdings towards the west have been laid out into village lots and here homes will be built for consumptives and their families.

It is not the intention of the company to sell this property, merely to rent these sanitary houses at as low a rent as similar homes can be rented for in Sierra Madre.

---

**COCAINE KELENE TWO PER CENT.** (FRIES BROS.)—The ideal local anesthetic. A combination of cocaine with Kelene (pure Chloride of Ethyl). Preserving all the advantages of cocaine, but obviating the use of the hypodermic injection. It is non-toxic and cannot deteriorate. Producing a profound and lasting anesthesia. Applicable on a mucous or cutaneous surface. Can also be used with the ther-

malcautery. The Kelene is not used for refrigerating purposes, but simply as the vehicle of the cocaine, removing the fats from the skin penetrating the superficial cellular layers thereof and depositing the cocaine in their interstices. Although only two per cent. cocaine is used, the Kelene enhances its anesthetizing power, so that it is equivalent to a six per cent. pure cocaine solution. The advantages of a permanent six per cent. cocaine solution absolutely free from all dangerous possibilities and capable of being applied instantly and without preparation—at once makes Cocaine Kelene the peer of all local anesthetics. Put up only in 10 gram tubes, 50 cents each. Sample tube mailed upon receipt of price.

FRIES BROS.

92 Reade St., New York.

---

"Pain and griping are conspicuous by their absence, and it is safe to say that Prunoids are absolutely unequaled in their freedom from the usual disagreeable after-effects of other cathartics or laxatives."

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#### CHLOROFORM, POST-ANESTHETIC EFFECTS.

Loss of leucocytes and hemoglobin, fatty liver and kidneys, loss of glycogen and increase of urinary toxins, fatty degeneration and fragmentation of the heart (Frankel), hyaline degeneration of blood-vessels (Ajelle), reflex respiratory irritation and inspiration bronchopneumonia.

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#### RHEUMATISM.

Discussing the treatment of acute rheumatism, R. C. Kenner, in the *Therapeutic Record*, frankly recommends sodium salicylate as the best remedy. While it is not new, there is little doubt in the minds of practitioners that this remedy is the best one. Dr. Kenner believes the salicylate greatly lessens the liability to cardiac complication.

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Editor,  
DR. WALTER LINDLEY.

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and DR. F. M. POTTENGER.

## SYMPTOMS AND DIAGNOSIS OF ULCER OF STOMACH, DUODENUM AND GALL STONES.\*

BY WILLIAM A. EDWARDS, M.D., LOS ANGELES, CALIFORNIA.

All that the writer of this paper has said upon history taking and history recording in a permanent manner is the keynote of the successful practice of modern medicine and surgery. Without a careful anamnesis of each case one is practically in the dark, groping about in 18th century medicine, often in a vain endeavor to find the diagnosis in the laboratory when it is at the bedside if carefully looked for. A criticism that has been made of us American surgeons is that we spend too little time at the bedside of the patient before operation and too much time at the operating table during the operation. Is it a just criticism?

The surgery of the upper abdomen has advanced much more slowly than that of the lower segment, including the appendix, mainly on account of diagnostic difficulties, to say nothing of the inherent difficulties in the technique of the operations.

I have long since ceased to look to the laboratory for any radical aid in

diagnosis in these diseases. We are just on the threshold of accurate practical knowledge of the physiology of the stomach, duodenum, pancreas and biliary apparatus. We know now that the digestive tract is not a number of separate units, but that there is an intimate connection and that disease in one may, and usually does, mean disease in all its parts. It has been said that the pancreas, the liver and its ducts and the stomach hang like three apples on a stem—the duodenum.

It is most unfortunate that until very recent times a diagnosis has rarely been made in any of these component parts until it has been manifested by the occurrence of a complication. Not only is there intimate anatomic relationship between the organs of the upper abdomen, but also there is the most intimate physiological function; hence the symptomatology of disease in this region is very similar, often confusing, and many times fails of early recognition. It is early diagnosis here, above

\*Read before the Los Angeles County Medical Society, May 6, 1910.



all other regions, that we seek. Early diagnosis in the vast majority of cases means radical relief, late diagnosis means failure or partial relief and semi-invalidism.

Above all, let us not approach the case with a preconceived idea of the diagnosis, but take a painstaking history and note the minor points and refrain from leading the patient. Your history will show you that practically every case that comes to you will give a long-standing history of "dyspepsia," an irregular appetite, flatulence, constipation, either discomfort on an empty stomach and comfort when it is full, or night comfort only after eating. All these symptoms the patient will tell you are "bilious attacks" or attacks of "indigestion."

The days have gone by when this patient receives a few minutes time in the office, a few wise saws and chin strokings and is given a pepsin and hydrochloric acid mixture and told to report in a week. This is not doing our duty; this patient has disease in the attic of the abdomen that can be relieved and permanently relieved if seen early, but it can only be fully understood by careful and painstaking study.

Subacute and chronic ulcers in the duodenum and stomach are, alas, often allowed to go unrecognized for years—often, as has already been said, until some complication as frank open hemorrhage, tenderness on pressure or perhaps perforation makes the diagnosis clear; when it was already clear if it had been looked for in the proper manner.

As the writer of this evening's paper has already shown, no case of gastric or duodenal ulcer need remain unrecognized.

As the writer\* of this evening's paper pepsia, particularly in a young person or one below middle life, never think

of functional disease, but rather of well marked pathologic changes due to latent or chronic gastric or duodenal ulceration, single or multiple.

My experience shows me that vomiting is rare and need not be looked for in the history unless the ulceration involves the pyloric portion of the stomach. I place but little confidence in the gastric analysis. It is as often misleading to me as it is of aid; so many factors cause a wide variation in all the constituents and as yet our methods of analysis are rather faulty.

The test for occult blood is valuable if performed properly and all precautions are taken to exclude error. Of vastly greater importance is the motility of the stomach. What the essayist said about the appetite is eminently true—that is, anorexia in large gastric ulcers or great capriciousness of appetite, but a point that I wish to dwell upon is the apparent inability of the individual to absorb food.

Also it has been said this evening that duodenal ulcers give symptoms in many ways similar to those of gastric ulcer, and that it, too, may be mistaken for gall stones. But here, too, a careful study will clear the picture in most cases. Most duodenal ulcers present symptoms similar to gastric ulcers. They have pain after ingestion of food, dyspepsia and occult blood in the stool. This pain, however, is apt to be characteristic—it comes on either after eating, but at a variable interval after the food reaches the stomach (this is the classical text-book pain), or it is the "hunger pain" of Mayo Robson, already referred to by Dr. Moore.

Duodenal ulcers are more comfortable when the stomach has some food in it, but in the history-taking the patient may not recognize the pain, but simply describe the desire to keep food in the stomach pretty constantly.

Rigidity and tenderness seem to me to be an early and valuable sign in

\*See page 318.

duodenal ulcer. In many of the cases of duodenal ulcer the physical examination, the analysis of the gastric contents and the laboratory reports will show you nothing; only by the history of the case can the diagnosis be made. Duodenal ulcer is perhaps the most difficult to diagnose; certainly its laboratory findings and physical examination are the most elusive. Many observers, notably the Mayos, think that it is as frequent as gastric ulcer; others do not think so. Of all the conditions considered by Dr. Moore this evening gall stones furnish the best example of delayed diagnosis. Their existence has been known for centuries and until within the last few years their description has not changed a single iota. They are apt even now not to be recognized until complications arise, either due to impaction of stones or a concomitant acute inflammation of gall bladder and ducts. Through this unfortunate lack of knowledge the statement crept into the literature that 90 per cent of the cases of gall stones were without symptoms—a ridiculous statement that has retarded the study of the conditions for the past 20 years. Every person who has gall stones suffers from them more or less—it may not be acutely, but it is certainly continuously.

Fortunately the symptom of jaundice has been eliminated from the literature. From 85 to 90 per cent of the cases do not have this symptom; also the classical right epigastric pain, sharp and excruciating and referred to the right shoulder, has been buried in oblivion.

Long before either of these symptoms come, or if they never come, the diagnosis of gall stones may be made as Dr. Moore has shown.

Do not let age deceive you. Most cases will commence before the fortieth year or even much earlier. Moynihan coined a happy term when he referred to "gall stone dyspepsia." Be on the

lookout for it and save your patients years of annoyance, discomfort, pain and even late malignancy. You will find that the so-called "latent" gall stones are crying out loudly for recognition if you will only read the signs correctly. I am perfectly willing to grant that the differential diagnosis between gall stones and gastric or duodenal ulcer is often extremely difficult and sometimes impossible, but none the less should the attempt be made and we can become satisfied that the location of the disease in the upper abdomen demands and is crying out for radical measures of relief. Unfortunately the early symptoms of disease in the upper abdomen are in many particulars very similar; early disease of the gall bladder, stomach and duodenum all have the so-called dyspepsia as a prominent symptom. Its type, however, will be different, as its anatomical seat is different. Dr. Moore has well shown this difference. I simply wish to add that early gall stone disease hardly has what might be called a pain, but rather a sense of discomfort which is relieved by the eructation of gas. The appetite is good, but some fear of eating early arises.

The early gastric ulcer shows more or less anorexia. This is usually not constant, but the individual who is the subject of early duodenal ulcer often presents the most puzzling problem, some simulating gastric ulcers, others gall stones. Those with early gastric or duodenal ulcers are a little more apt to vomit than the person who has gall stones.

These latter patients often wish to vomit, and in their history will tell you that they feel that if they could vomit it would relieve their discomfort. Vomiting, then, is not a symptom of early gall stones, and usually only occurs late in association with gall stone colic.

I have, and perhaps all of us have,

seen duodenal ulcer cases in which vomiting never occurred throughout the course of the disease.

In the three conditions described by Dr. Moore, the pain varies considerably, but a most painstaking history will be required to show its varieties; careless, hurried work will not show it.

To be concise, I should say that early gall stone pain is more often described as a sense of tightness or constriction, but in addition they tell us of a sense of chilliness that is of great diagnostic aid; these patients complain more of stiffness and soreness of the right side than they do of actual tenderness, un-

less of course they are having an acute exacerbation—acute cholecystitis. At all times they may have tenderness on deep pressure beneath the right costal margin.

The early gastric or duodenal ulcer has marked tenderness, and the pain is apt to be definitely localized, and it may depend either on the ingestion of food or the empty stomach.

Now we come to the climax of this discussion. Let the condition be any of those that we have discussed, or in addition let there be perigastric or pericholecystic adhesions: there is but one avenue of relief for your patient and that is surgery.

Security Building.

## SYMPTOMS AND DIAGNOSIS OF ULCER OF THE STOMACH, DUODENUM AND GALL STONES.\*

BY E. C. MOORE, M.D., LOS ANGELES, CALIFORNIA.

I shall confine my paper this evening to the symptoms and diagnosis of ulcer of the stomach, duodenum and gall stones, as these are the principal lesions found in the upper abdomen.

In none of the surgical abdominal lesions is a careful and painstaking history so essential to reach a correct diagnosis as these two conditions.

The symptoms complained of late in these diseases after complications have occurred are so similar in many cases and so confusing that it is at times impossible to make a correct diagnosis. It is therefore necessary to refer to the carefully developed early history when the symptoms are characteristic of each lesion that we are able to tell which one is present. In speaking of ulcer I shall take the duodenal as the type—the symptoms of gastric ulcer being the same, the chief difference being one of degree only.

Reviewing the histories of a large number of cases that have come to operation for ulcer, one notices the length

of time of stomach complaint. Usually the history runs from 4 to 20 years and some much longer, the average in the clinic at Rochester, Minn., being 12½ years. Chronicity then is typical as a rule of ulcer. The patient will tell you that he has had stomach trouble for years, mild in the beginning, usually of short duration and with no disturbance to his general health and employment. The complaint will be of the same character but has been gradually increasing in severity.

Periodicity is also characteristic of ulcer. The onset of the attack is usually without any apparent cause, lasting for days, weeks or months. This is so clear-cut that the patients oftentimes say they will have a spell in the spring or fall.

These attacks consist of first a sense of comfort after meals, then in from 2 to 5 hours epigastric pain and distress, sour eructations of food and water or occasional vomiting. Each day will be

\*Read before the Los Angeles County Medical Society, May 6, 1910.



a repetition of the one preceding, during the attack.

Following the attack the patient will have a period of relief, when he will be able to digest his food without discomfort, this subsidence of the attack coming without apparent cause, as did the onset.

These alternate attacks of comfort and distress will come at irregular intervals, and last various lengths of time. The periods of comfort, however, become short, the attacks oftener, more severe and of longer duration, until finally, as complications become present, the complaint is a constant one.

Chronicity and periodicity are characteristic of gall stone disease and appendical troubles, as well as in ulcer. They also come irregularly and increase in severity as does ulcer. But the regularity of the symptoms day after day and the mode of relief are not present in gall stones and appendical troubles as they are in ulcer. Dr. Graham says that these periods of complaint with periods of intermission covering various lengths of time, excluding other details, are so characteristic of ulcer that this one feature is often sufficient to warrant a probable diagnosis.

I will now take up the symptoms.

**First, Pain.** Pain in duodenal ulcer is one of the most constant symptoms. Some clinicians say that in the absence of pain a diagnosis of ulcer must not be made. With this I do not agree, as I have sent to operation cases with a diagnosis of duodenal ulcer which was demonstrated at operation. And in the history of these cases I was unable to get any history of pain at any time. They would have an uncomfortable feeling after food, but not pain. The pain is usually epigastric in location with a limited field of radiation. It is complained of from two to five hours after meals, is of gradual onset. Patients describe it variously as a mild distress, dull, boring pain, gnawing pain or ach-

ing. It is really pre-meal pain rather than after meals. The pain is always relieved by food, soda, milk. Patients often taken a glass of milk to bed with them and drink it during the night for relief. The heartier the meal the longer the period of relief. Food ease is characteristic of ulcer pain. The pain continues and increases in severity until vomiting takes place, food is taken or irrigation is used to remove the acid stomach contents. At the time the pain is at its height, so is the belching of sour gas, sour fluid, eructations, water brash and pressure, and vomiting of sour burning fluid. Some or all of these symptoms are present in ulcer during an attack and each may be characteristic of ulcer when considered in relation to time of appearance. All of these symptoms, chronicity, periodicity, gas, sour eructations, vomiting and pain are not characteristic of ulcer. They are also found in gall bladder disease and appendical troubles. It is not the location of the pain or the character of the pain with the other symptoms already spoken of upon which a diagnosis of ulcer is made, but it is: **First**, the time of the pain or these associated symptoms. **Second**, the regularity of the pain or these associated symptoms. And, **third**, the means by which relief is obtained. If you have these symptoms of sour eructat of food and water, sour gas, vomiting of sour fluid and pressure after meals coming at definite intervals with food relief, you are warranted in making a diagnosis of ulcer. These symptoms of pain, etc., may be found in hyperacidity hyper-secretion, but the symptoms will be found to vary and there will not be the long history of chronicity as is noted in ulcer.

These almost pathognomonic symptoms become less constant as the ulcer is further away from the pyloric area or as complications arise. In ulcer of the cardia or the greater curvature, the symptoms are almost immediately after

food. As complications arise, the symptoms are more or less constant; pain is present more or less all the time and without food relief. Gas is a constant complaint. Nausea more or less continuous, vomiting is delayed in character and contains remnants of former meals and is greater in quantity. The patient then gets relief by careful dieting or when the stomach is empty.

Conditions that usually follow ulcer and change the character of the symptoms are ulcers extending up on the lesser curvature of the stomach; second, large saddle ulcers; third, ulcers that have contracted and produced obstruction; fourth, perforations; fifth, hour-glass stomach; sixth, adhesions to the G. B. or any other abdominal organ and thus restricting the mobility of the stomach or of themselves causing obstruction. The late symptoms of G. B. pancreatic heart and kidney lesions, appendical troubles, pernicious anemia, all have these same irregular symptoms of stomach trouble and it is only by referring to the early developed history to make your differentiation.

Gall bladder disease, as diagnosed on Rochester, Minnesota, is classified in four stages and based on the degree of the symptoms.

In the first stage, the patient usually complains of mild dyspeptic symptoms, consisting of gas and pressure coming at irregular intervals after food, the time varying from immediately to several hours. The onset is sudden, duration is short and the relief is sudden. Usually it is eased by belching or regurgitation of food or slight vomiting. These sudden attacks of mild indigestion coming at irregular intervals are often passed over by the patient as of little consequence, but they are as typical as the severe attack of gall stone colic of gall bladder disease.

In the second stage, the cases complain of attacks more or less constant, dull pain, epigastric along the right costal border or maybe over the entire

liver area. This pain may be increased by food, deep inspiration, jolting or sudden motion. Oftentimes the pain when situated posteriorly has been diagnosed pleurisy. In an attack the patient will have more or less gastric distress, belching gas, occasionally sour, usually bitter, occasional nausea and vomiting, and if it was not for the irregularity of these same symptoms one would think of ulcer.

The third class comprises the greater number of cases. It is in this type of cases that the so-called typical attacks of gall stone colic are found.

The pain is sudden in onset, usually epigastric or so-called mid-line pain. It is tearing, cutting, lancinating in character, usually step-ladder in severity, sudden in cessation, and following the attack the patient feels as well as before other than a sense of weakness and possibly soreness. This continues to hold good until complications occur. The radiation of the pain is usually right costal, or to the right scapular region. Occasionally it may radiate to left costal border or to right shoulder. Accompanying the pain, nausea and vomiting are at times present, and may give some relief. Spasm of the diaphragm is present in the severe attacks. These attacks come at irregular intervals for years, usually increasing in severity. They may come night or day and are often diagnosed in the absence of jaundice, acute indigestion, acute gastritis or neuralgia of the stomach.

In the fourth stage are classified those cases of chronic gall bladder disease with adhesions, duct obstruction, perforations of G. B. and infection of the liver ducts and pancreatitis.

It is in these cases that the gastric symptoms often predominate. Nausea, vomiting, sour gas, delayed food, vomiting, etc., are present. These are also the symptoms of chronic ulcer and its complications. It is therefore necessary to review the early history to differentiate the two conditions, and why it is

so essential to have a good careful early history to refer to.

I wish to say a few words about the value of the test meal in these cases. Too much dependence must not be placed on the test meal findings.

In a series of 250 cases of ulcer of the duodenum and stomach which were diagnosed ulcer and the operative findings were ulcer. The total acidity of the test meal was below normal in 28 cases, absent in 13. Normal 106 cases, normal being 40-60 above normal 103.

Free acid absent in 13, below normal 23, normal 102, normal being 20-40 above normal 102.

Food remnants present in 73 cases. Blood in 49 cases. Lactic acid in 53 cases: Showing that in three-fourths cases high acidity was not present as is commonly thought in ulcer. This was found to vary according to the age and chronicity of the patient. The older the patient and the longer duration of trouble the lower the acids.

In 100 cases of pyloric spasm due to appendicular or gall bladder trouble, free acid was present in 84 cases, absent in 16.

Total acidity below normal in 14 cases, normal 35, above 35, absent 16; free acid below in 7 cases, normal 48, above 29, absent 16. Food remnants present, 20. Blood, 32.

These tests do not vary from those in ulcer and independent of the clinical histories do not tell anything.

In conclusion: Periodicity and chronicity are typical of ulcer. The periods of trouble and periods of perfect or

partial health intervening. The general health does not suffer in gall stones until complications recur.

Pain in gall stones is irregular as to time, of sudden onset, severe and of short duration; sudden cessation radiates, as a rule, to the right costal arch and back and bears no relation to food.

The pain in ulcer is usually clear-cut, by spells regular in time, always eased by food, to again recur in from 2-4 hours.

Vomiting is not much of a diagnostic factor in gall stone disease. It is usually small in amount unless the attack follows soon after a meal. The vomiting is usually bitter, sour bile, and does not give the relief as in ulcer.

In *ulcer* vomiting is as regular as is pain, and consists of sour liquid or food, not offensive and large in amount. It consists mostly of fluid. It always produces relief and is controlled, as is the pain.

Gas in ulcer is a symptom at the time when the other symptoms are present and is controlled in the same manner as are the other symptoms.

Gas in gall stones is not complained of to any great extent except during the time of the colic. It is usually severe at this time and may give rise to severe upward pressure. It disappears as soon as the colic ceases. Graham thinks this may be due less to the gas than to the radiation of the pain.

In gall stones the health does not suffer until after complications occur.

In ulcer the patient is often reduced in weight and general nutrition.

H. W. Hellman Building.

## ANKYLOSTOMIASIS.\*

BY CLARENCE L. COLE, A.B., M.D., PRESCOTT, ARIZONA, CAPTAIN MEDICAL CORPS U. S. ARMY.

Ankylostomiasis is said to have been known, at least, 1500 years before Christ.<sup>1</sup> The description of symptoms and treatment of the disease are given in Ebers papyrus.

The disease was rediscovered by Piso, in Brazil, in 1648,<sup>2</sup> and the medical literature of a number of countries appearing between this date and that of the discovery of the parasite by

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Goeze,<sup>3</sup> in 1782, bears evidence of the knowledge of a more or less general distribution of the disease throughout tropical countries during this period.

It was not until 55 years later (1843) that the parasite causing this disease was removed from the human intestine, by Dubini, while performing an autopsy. He named it *Ankylostoma Duodenale*.

In Egypt, the disease has been recognized for many years, and is there known as the Egyptian Chlorosis, and, at times, there have been epidemics of the disease attending large engineering undertakings, as that of the St. Gothard Tunnel epidemic, which renewed the interest of medical men in the disease and the parasite causing it.

The disease has received many names because of the fact that several outbreaks have been prevalent in engineering undertakings, which afford favorable opportunities for dissemination of the infection, or that the disease is more prevalent in persons following occupations which facilitate infection by reason of subjecting the individual to the larvae under the most propitious circumstances for contracting the disease.

Some of these names given by Osler are "Egyptian Chlorosis, Brickmakers' anemia, Tunnel anemia, Miners' cachexia and Mountain anemia."

I have given this list for the reason that it is the writer's desire that this paper, through directing attention to this disease, may assist in clearing up the obscurity which may have surrounded some case of indefinite malaria or jaundice or dyspepsia that has not yielded to treatment as it should.

The climatic conditions of Arizona are, certainly, not such as would be conducive to the spread of this disease throughout a large number of inhabitants as occurred in some portions of the United States. But it is not impossible that the disease may be present in some of the mines of the Terri-

tory where the ova may have been introduced by infected persons.

The disease has a special name in nearly every country in which it is found, but the numerous English names that point it out as a miners' disease indicate its prevalence among men following this occupation, and it seems very unlikely that infected miners from other localities have not introduced the disease into Arizona. I have been unable to find reference to any cases of this disease in Arizona, yet it has been reported from Texas, Mexico and Southern California.

W. C. Alvarez, writing of the prevalence of the disease in Mexico, calls attention of the physicians of this territory (Arizona) to the possibility of the prevalence of the disease in the following language: "Granting, then, the importance of this subject in the United States, it may be of interest to the physicians of California, Arizona, New Mexico and Texas, especially, to know that across the border there are endemic foci of *Ankylostomiasis*."

It was not until 1893 that the first case of *Ankylostomiasis* was discovered in the United States. This occurred in St. Louis, observed by Blickbahn<sup>4</sup> or Blickbahn.<sup>5</sup> Ten years later, when Capps reported a case of the disease, there had been just fifty-one cases recognized.

Prior to the description published by Stiles, in 1902, of a new species of hookworm (*Necator Americanus*), it was thought that all cases of this disease occurring in man were due to the *Ankylostoma Duodenale* (Dubini).

In less than 10 years this disease has been found to be so prevalent in some portions of this country as to be the cause of a physical and mental degeneration of many of the inhabitants of these localities so marked as to have been considered characteristic, almost racial.

Many generations of infection with the hookworm are now known to be

the cause of the shiftlessness, ignorance, lack of physical development and lack of energy characteristic of the poor white of the South.

The knowledge of this disease has become so general, and the disease found in so many localities, that at the recent Hookworm Conference, held at Atlanta, Ga., discussions were conducted by men who had treated hundreds of cases. Meanwhile, two American physicians, Ashford of the Medical Corps, U. S. A., and King of the Public Health and Marine Hospital Service, have personally, and in conjunction with their associates of the Porto Rico Anemia Commission, treated thousands of cases, and proven that thousands of people were dying annually from the disease in Porto Rico.

Uncinariasis has been found so prevalent among all classes of the South as to have its influence upon the physical development to such an extent that the recruits for the army of southern birth are found to be inferior physically to the northern bred men of the same age. Chamberlain<sup>6</sup> found 60% of southern bred recruits to be infected with the hookworm, yet apparently in good health but underdeveloped. Again, in one class of medical students of a southern college 30% were found to harbor the parasite.

#### THE PARASITE.

The hookworm is represented by many species, some of which are parasitic upon dogs, cats, cattle, sheep, horses, seals, etc., while there are two species of the parasite that cause the disease in man. These are the *Ankylostoma Duodenale* (Dubini) and *Necator Americanus* (Stiles).

I attempted to secure specimens of the Old World variety of hookworm for exhibition at this time, but was unsuccessful; and the only specimens I have for exhibition are the New World species, *Necator Americanus*. These are from cases reported by the writer

occurring in the Philippine Islands and were the first of this variety reported in these islands.<sup>7</sup>

Garrison<sup>8</sup> has, since, confirmed this report and finds that the infection with *Necator Americanus* is almost universal in the P. I.

The female uncinaria infecting man are from 10 to 13 mm. in length and .5 to 1 mm. in diameter, those of the Old World variety, *Ankylostoma Duodenale*, being larger than the *Necator Americanus*. They are generally grayish white in color and their bodies slightly curved somewhat like the letter S.

In case the parasite has ingested blood (?) it may present a dark brown appearance. The male parasite is smaller than the female and is readily distinguished from the female by the presence of a terminal enlargement known as the caudal bursa. The same characteristics as to relative size of the male parasite of both varieties is preserved as for that of the female.

The principal characteristics which differentiate the two varieties of the parasite, other than size, are in the mouth parts, position of the vulva in the females and difference in caudal bursa of males.

The measurements of the *Ankylostoma* are as follows: 8 to 11 mm. in length by .4 to .5 mm. in breadth for the male and 10 to 13 mm. in length by 1 mm. in breadth for the female.

The following measurements of the *Necator Americanus* were made of parasites recovered from cases treated in the U. S. Army Hospital at Manila, P. I.:

Females, shortest,	10 mm.	Longest, 13.5 mm.
Males, " "	7.25 mm.	8.5 mm.

In the Old World variety the mouth, or buccal capsule, is armed with four distinct hooks and two conical teeth,<sup>8</sup> while in the New World species the hooklets are replaced by ventral and dorsal pairs of semilunar plates and

two pairs of submedian lancets as well as a dorsal tooth.

In the Old World variety the vulva of the female is in the posterior  $\frac{1}{3}$  of the body, while in the female of the New World variety, the vulva is situated in the anterior  $\frac{1}{3}$  of the body.

Following measurements from the Philippines specimens:<sup>9</sup> "The ratio which length of head to vulva bears to the length from the vulva to the tip of the tail" is as follows:

No. 1, 1:2.32 No. 2, 1:2.43 No. 3, 1:2.29

The caudal bursa of the male of each species is characteristic—within the bursa are a number of fimbriae, known as rays. The dorsal pair of rays within the caudal bursa of the Old World variety are not divided to their bases, and the tip of each ray terminates in three digitations; while in the New World variety, the dorsal rays are divided to their bases, and they terminate in bi-partite tips. Other rays within the caudal bursa differ in the two specimens, but the preceding characteristics are the most marked and serve to distinguish specimens most readily.

#### THE OVA.

The ova of uncinaria are interesting and easily distinguished in microscopical specimens when their characteristics are known. As finding the ova is the only positive evidence of the existence of the disease in light cases, their recognition is very necessary. The ova are never bile stained, but clear and hyaline. They are oval in outline, having a distinct capsule of two layers. The protoplasm may be observed in any stage of segmentation, or development may have progressed to that stage that the living embryo may be seen within the egg. The stage of segmentation found, or the development of the parasite, depends upon the time intervening between that of passing the stool and that of the microscopical examination.

The following measurements of ten uncinaria ova isolated from the author's cases give the approximate size of ova of Necator Americanus:

1, 72x40 m.; 2, 62x38 m.; 3, 58x42 m.; 4, 73x42 m.; 5, 58x43 m.; 6, 68x36 m.; 7, 68x38 m.; 8, 62x38 m.; 9, 68x38 m.; 10, 62x42 m.

The ova of the Old World parasite are slightly smaller than the measurements given above.

Of the ova found in the stools of individuals infected with intestinal parasites, the three most common varieties are those of *Trichocephalus trichiurus*, or whip worm. *Ascaris lumbricoides* and the hookworm (*Ankylostomum* and *Necator*). The first two varieties are bile stained, that of *trichocephalus* shaped like a tea tray, while that of *Ascaris* has a very rough shell.

The technique of microscopical examination of feces of individuals suspected of having the disease is simple. A loop full of the suspected fecal matter is added to a drop or two of normal salt solution in the center of a slide and the cover glass applied with enough pressure and lateral motion to insure a preparation of sufficient thinness to allow examination of the entire preparation. After having formed a clear mental picture of the ova the specimen may be hastily searched by using a  $\frac{2}{3}$  objective. Then carefully observing any suspected object with the  $\frac{1}{6}$  objective. But if the observer is not familiar with the object sought a slower but more certain method is to use the  $\frac{1}{6}$  objective, searching the entire specimen. This simple technique will serve for detecting the ova in all but the mildest infections or for examining stools after treatment to determine whether or not treatment may have expelled all parasites, provided that a sufficient number of slides have been examined. More complicated methods have been devised by Bass<sup>10</sup> and others,<sup>11</sup> whereby the number of ova may be collected from large portions of fecal matter nearly or quite free from other sediments.



## LIFE HISTORY OF PARASITE.

Two periods of existence are known for this parasite. One is extra-corporeal while the other is intra-corporeal. The ova are passed from the parasite and evacuated by the patient in the feces. The ova are in early stages of segmentation, never as embryos. The ova soon hatch (twenty-four to forty-eight hours) and pass through a number of developmental stages. Smith found that they cannot infect human beings until they are four days old. Then when applied to the skin, after a very few minutes, a stinging sensation was felt by the patient experimented upon; and upon removal of the material in which the larvae were contained, when applied to the skin, the skin was found to be reddened. This reaction had not followed similar application to the larva containing paste upon previous days.

## ANKYLOSTOMIASIS.

Formerly this was thought to be a water-borne disease, but since discovery by Loos,<sup>13</sup> it is now known that the disease is generally transmitted by the parasite gaining entrance to the body through the skin. Access is rarely, if ever, gained by the alimentary canal. Ashford and King<sup>14</sup> found that 96% of their cases in Porto Rico had suffered from the ground itch and the well shod rarely suffered from the disease.

Manson<sup>15</sup> gives Loos' statement that the *Ankylostoma* embryo would be digested if taken directly into the stomach and that the worm must have passed through a "stage of preparation" before it can resist the gastric juices.

All experimental cases have shown a characteristic cutaneous eruption following the application of the larvae. This eruption is the "Mazamona," ground itch or dew itch known in countries where the hookworm disease is common, and it was not until the middle of the seventh week after the appearance of this rash in Smith's case that

the ova of the hookworm were found in the stool. It has been suggested that the tonsils and pharyngeal mucous membrane may be the means of entrance of the parasite when present in water.

The progress of the larval hookworm from the skin to the intestine is, according to Loos,<sup>16</sup> as follows: The embryo enters the skin through a follicle and gains access to the blood stream, then reaches the lungs, where it passes through the delicate alveolar wall and gains access to the air passages. Along the trachea, the embryo climbs until it has reached the esophagus, to arrive ultimately in the small intestine.

## SYMPTOMS.

The symptoms of *Ankylostomiasis* present so many confusing pictures that examination for ova of the parasite will reveal the causes of many obscure and confusing complaints, as they can always be found if the patient is suffering from this disease. The next most constant symptom is the progressive anemia, which is generally accompanied by gastric disturbance.

Not every case with heavy infection presents severe symptoms, and the reasons for this are thought to be: Lack of susceptibility to the toxine or partial immunity which is marked in the negro. The age at which the disease is contracted and variability in toxic properties of secretions of different parasites. Good nutritious food assists in resisting the infection.

Remarkably severe symptoms are reported by Brown<sup>17</sup> in a case that nearly died from anemia, yet but seven parasites were recovered after administration of the anthelmintic.

The manifestations of the disease are divided into three classes according to the severity of the symptoms. These are slight, moderate and severe, and, in general, these degrees are characterized by greater severity manifested in the cases of that particular degree as well

as additional symptoms in the more severe cases. Ankylostomiasis with no other symptom than the presence of ova in the stool is possible.

The symptoms manifest themselves in the appearance of the skin, retardation of general development, muscular system, circulatory system and blood changes, nervous system, respiratory system, alteration of digestive function, changed appearance of mucous membrane, interference with reproductive functions and development, vision and disturbance of temperature.

No attempt will be made to present the symptoms of this disease as they appear in the different stages, but emphasis is given the fact that generally the severity of any of the symptoms presented in a particular case is an index of the extent of the infection.

#### SKIN.

At the time of infection a rash appears at the site of contact with infected material, which was found by Smith<sup>18</sup> in experimental cases to pass through the following stages: In a very few minutes after contact with infected material, the patient experiences a sharp stinging sensation. This subsides in a few hours to be followed by an almost intolerable itching which lasts for a number of days. The cutaneous changes pass through the stages of redness, vesiculation, formation of blebs, which, later, rupture and are followed by incrustation. These stages require 8 to 9 days for their course. Following this ova of the parasite may be found in the stool upon microscopical examination, after expiration of 7 to 10 weeks. The effects of the infection, later, shows itself in changes of color of the skin, such as sallowness, pallor, lemon color or dead white and a facial expression characteristic of age far beyond that shown by physical development. The ears are devoid of color and nail beds and conjunctivae are colorless.

#### RETARDATION OF GENERAL DEVELOPMENT.

This condition is so marked in cases of severe infection that has been acquired early in life that the patient of 20 or 25 years does not appear older than 12 or 14 years, because of retarded development, lack of body hair, etc.

#### MUSCULAR SYSTEM.

The muscles become soft and flabby with extreme muscular weakness.

#### THE CIRCULATORY SYSTEM.

The influence upon the circulatory system is marked and blood changes are characteristic. Cardiac dilatation is frequent with frequent weak pulse and murmurs at the base of the heart and in the great vessels. A progressive anemia is a constant symptom. Palpitation is frequent.

#### BLOOD CHANGES.

The hemoglobin is always reduced. This reduction may fall as low as 8% with ultimate recovery.<sup>19</sup> Of 600 examinations in Porto Rico none gave a reaction of over 40 to 45%.<sup>20</sup> Yet mild cases are frequently encountered in which the hemoglobin is not below 90%. The decrease of hemoglobin always exceeds the numerical decrease of red cells.

Eosinophilia is generally present but its presence is not an indication of the severity of infection, for many cases of heavy infection may show no eosinophilia.

#### NERVOUS SYSTEM.

The changes in the nervous system are dizziness, tinnitus, headache, paralysis, especially of lower extremities, absent knee jerks, and Signovilli<sup>21</sup> reports cases in young patients who suffered from meningeal neuralgiform and convulsive eliptiform syndromes. The mental torpor is characteristically shown in slow speech. Pain in the epigastrium, increased by pressure, (and which may be relieved by food) is a very frequent early nervous symptom.

## RESPIRATORY SYSTEM.

Dyspnoea is a constant symptom following exertion.

## ALTERATION OF DIGESTIVE SYSTEM.

May be Anorexia, but generally bulimia is present and in many cases there is pica or geophygia, the patient craving earth, dust, rags, hair, etc.<sup>22</sup> There may be vomiting. The bowels may be loose in severe cases with fatal diarrhea or there may be constipation. In persons suffering from infection with *Necator Americanus* the presence of occult blood in the stools is not as frequent as formerly supposed.

## INTERFERENCE WITH REPRODUCTIVE FUNCTIONS AND DEVELOPMENT.

The male may become impotent, and the female suffers from amenorrhea. Children born of parents suffering from this disease may be rachitic. Puberty is delayed. Menstrual function may not appear until the age of 18 or 20, or not at all.

## VISION.

Retinal hemorrhages frequently occur and night blindness is common.

## TEMPERATIVE.

The temperature is irregular. It may reach 103 F. and may be intermittent, or may be constantly subnormal.

## GENERAL.

There is, generally, dropsy or serous effusions into the subcutaneous tissues and serous cavities, giving a plump appearance.

## PATHOLOGY.

The pathology of Ankylostomiasis, as has been shown, comprises marked changes in the blood elements and blood-making organs. The blood findings have been referred to previously, but, in detail, there is, generally, eosinophilia above 5% and the eosinophilia is considered an index of reaction to the toxine. There may be a few Erythroblasts and Megaloblasts also Poikilocytosis and Polychromatophilia.

The following are blood counts reported by Leonard:<sup>24</sup>

Eosinophiles .....	18%
Polymorphonuclear Leucocytes .....	55%
Large Lymphocytes .....	8%
Small Lymphocytes .....	17%
Hemoglobine .....	8 to 40%
Other cells .....	2%

Because of the fact that many persons infected with this parasite do not know it until the ova are found by microscopical examination, many observers disregard these infections; but besides being a menace to others, there are many severe cases in which only a few worms are found. Sandwith<sup>23</sup> reported 26 fatal cases of which 863 was the maximum number of worms found at autopsy. In 6 of 18 of these cases in which no treatment had been given, there were less than ten worms per case. Still more astonishing, two cases only revealed one worm each.

Muscular tissue is said to be brownish-gray, friable and may be atrophied. The protoplasm reduced in amount and fibers are fragmented on microscopical examination. Edema and serous effusion have been previously referred to.

The worms are found to inhabit the jejunum principally, but may be found in the stomach, duodenum and ilium. The organs in which found show catarrhal inflammation with much mucus, which may or may not be bloody. The latter condition seems to be more characteristic of *Ankylostoma* infection than the infection met with in this country.

The mucosa is the only tissue involved and it may be atrophied with erosion at site of attachment of worm. This is difficult of perception, however. Petechial hemorrhages mark the site of attachment of *Ankylostoma* and they may penetrate the mucosa to some depth, (but not with *Necator*).

The food of *Necator* seems to be epithelial cells almost entirely, as Ashford has counted thousands of specimens without finding any containing blood, and microscopical sections of this parasite attached to the mucosa show



the buccal capsule filled with epithelium, and he, furthermore, has seldom found blood in the stool.

#### THE KIDNEYS.

There is, generally, chronic parenchymatous nephritis and the kidneys are pale and slightly enlarged, while there may be an increase of connective tissue. The changes detected on microscopical examination are said to be confined to the convoluted tubules, principally, and they consist in fatty degeneration and desquamation of epithelium, while bloody and epithelial casts may be found in them. There are exudates into the interstitial tissue and Bowman's capsule.

The urine may contain albumin with hyaline and granular casts although no anthelmintic has been given which may have acted as an irritant to the kidneys.

#### THE SPLEEN.

The splenic changes are considered by Ashford as definite and characteristic. The spleen is smaller than normal, soft, and the capsule is wrinkled. The lymphoid elements are decreased and the cells of this tissue are smaller than usual. The Malpighian corpuscles are small and contain fewer cells. There is a relative increase of connective tissue.

#### THE LIVER.

This organ shows fatty degeneration. There may be found grains of yellow pigment in the paranchyma cells. These grains of pigment give the reaction of hematoidin and are thought to be evidence of intervascular blood destruction, due to the toxine secreted by the parasite.

#### THE LUNGS.

These organs may be pale and edematous. There may be passive congestion due to incompetency of mitral valves. There may be effusion into the pleural cavity.

#### THE HEART.

There may be cardiac hypertrophy. Functional incompetency. The peri-

cardial fat generally increased and there may be serous effusions into pericardium. Microscopical changes are brown atrophy or fatty degeneration.

#### THE BRAIN.

Anemia and clear yellow fluid in the ventricles.

#### THE MARROW.

Marrow of long bones may show changes resembling those of pernicious anemia.

#### HEMO LYMPH GLANDS.

Increased in size in region of abdominal aorta.

#### THE CUTANEOUS ERUPTIONS.

While the primary eruption or ground itch may heal in a few days, as previously stated, if pyogenic organisms are introduced, prolonged suppuration may follow, or deep ulcers may appear.

#### DIFFERENTIAL DIAGNOSIS.

Pernicious anemia. Ankylostomiasis presents a condition resembling pernicious anemia in certain characteristics, but microscopical examination of the stool reveals the ova of the parasite in former. The Erythrocytes are seldom reduced as markedly in Ankylostomiasis. In light cases observed in the tropics the red count was always around 5,000,000 cells. The anemia is progressive with no remission. The conjunctivae do not show the yellow fatty bodies seen in pernicious anemia. The facial expression in Ankylostomiasis is peculiar to the disease.

Suspected aneurism or valvular disease clears up upon removal of hookworm. Malaria and amebic dysentery are determined by blood and stool examinations in which the organism causing such disease is found.

CHRONIC DISEASES: Condition clears up on removal of uncinnaria.

TUBERCULOSIS: Temperature not characteristic. No emaciation as in tuberculosis. Improvement on eradication of hookworm.

**CARCINOMA:** Tumors never present and condition improves with appropriate treatment.

**BRIGHT'S DISEASE:** Albuminuria and casts present in Ankylostomiasis, but, unless the kidneys have been permanently injured, the symptoms are relieved with the removal of the uncinaria.

#### TREATMENT.

The treatment of uncinariasis is very simple and the results are rapid and satisfactory.

Bozello, in 1880, introduced thymol in the treatment of the disease and this is now considered the most satisfactory drug to use. Beta-naphthol is sometimes used, but its effects on the kidneys are more serious, there being a marked amount of albumen in the urine when used in sufficient quantity to expel the worms, and it does not expel the worms as thoroughly as thymol.

Thymol may produce toxic symptoms if oil, alcohol, ether, turpentine, etc., are taken with it or while the patient is undergoing treatment, and these drugs should be avoided at the time of treatment.

Treatment should begin with the patient not having eaten solid food for 12 to 24 hours. A full dose of calomel is administered in the evening and a saline purge is given on the following morning. After free bowel movement, thymol is given in capsules, the dose varying from 7 to 60 grains (.5 to 4 gms.) according to the age or apparent age of the patient; the quantity being more carefully determined up to 15 years of age than from that period on.

The quantity to be given is divided into two doses and administered an hour apart. The patient is required to remain quiet with no food during the day. A laxative may be administered late in the day, after this has produced bowel movement. Food may be allowed. Iron and tonics are not necessary in building up the patient.

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## FIRST AID IN EYE INJURIES.\*

BY FRANK W. MILLER, M.D., LOS ANGELES, CALIFORNIA.

Promptness and decision of action in emergencies tax the power of resource in the medical man.

To render intelligent first aid so as to restore and preserve normal function requires greater skill than any other branch of surgery.

While proper first aid is always of the utmost importance, its exhibition in

eye injuries can hardly be overestimated. No other part of the organism demands such exacting care as the recently injured eye. Its delicate nature, susceptibility to infection, and the fact that trivial injuries are often followed by such distressing and dangerous after-results, makes necessary extraordinary skill in first aid treatment.

\*Read before the Southern California Medical Society at Redlands, May 4, 1910.



The fate of the damaged eye is often determined by the character and thoroughness of the first aid measures, and for this reason the surgeon who sees these injuries should realize the necessity and importance of careful and painstaking work, and unless he is competent should not undertake the task, for with most individuals eyesight is synonymous with life, and neither is to be trifled with.

This paper shall be concerned entirely (as the title suggests) with "first aid" treatments, and presumes of course that the eyeball is not hopelessly destroyed, and that the injury is such as to offer some chance (however slight) of useful vision.

The first requisite to proper "first aid" is thorough examination. This is imperative, and neglect of it is inexcusable and should lay the surgeon open to criticism.

No generalizing or guess-work is allowable, neither must anything be taken for granted, for it is absolutely necessary to know in detail the nature and extent of the injury. A routine method should be adopted and each part inspected in order that no lesion may escape.

Any satisfactory form may be pursued, but the following answers every purpose:

1st. External parts: lids, orbital margins, etc. 2nd. Tension. 3rd. Globe itself, cornea, conjunctiva, etc. 4th. Iris, for color, position, shape, size and mobility of pupil as compared with the sound eye. 5th. Evidence of perforation. 6th. Ophthalmoscopic (if possible), to determine the condition of the lens vitreous fundus, etc.

Treatment will depend largely upon the existing state of affairs, and will be taken up in detail later, but there are two general measures that are applicable to practically every case, and they are: 1st, Antisepsis; 2nd, Mydriatic.

Extreme antisepsis follows as a matter of course in all injuries, and the employment of a mydriatic puts the eye in a state of rest and prevents adhesions. One drop of a 1 per cent sol. of atropine instilled at the "first aid" has saved scores of eyes, and countless numbers have been lost because the first surgeon neglected to use it.

Ocular traumatism may be arbitrarily classified as follows, although several conditions may and often do exist at the same time:

- I. Superficial injuries: (a) Lids; (b) Conjunctiva; (c) Cornea.
- II. Burns (chemical, heat, light, etc.).
- III. Contusion wounds.
- IV. Penetrating wounds with or without retention of the foreign body.
- V. Wounds of the orbit.

#### I. SUPERFICIAL WOUNDS.

(a) *Lids*.—Skin wounds of the lids require the same attention as elsewhere, but with the additional necessity of careful approximation of the edges and the prevention of scar-tissue. For distortion of the lids secondary to cicatricial contraction is exceedingly disfiguring and often robs the cornea of the protection it demands.

Thorough antisepsis should be observed, for sloughs and oedemas follow infection and make for additional scar tissue. However (and fortunately) wounds of the lids, because of their abundant blood supply, usually heal quickly and satisfactorily if properly handled.

Should the wound involve the cartilages of the lids, these should be carefully sutured (preferably with horse-hair) and proper support maintained until healed. Wounds involving the drainage apparatus in the internal canthus should have special attention directed to restoring and maintaining their function.

(b) *Conjunctiva*.—Injuries of the conjunctiva alone are usually of small consequence, but should be sutured (with fine black silk) if of any extent. Care should be used to cover all denuded surfaces so as to prevent the formation of adhesions between the globe and the lid, and often it requires a great deal of skill and resourcefulness to accomplish this. All antiseptics used in the eye must be mild and non-irritating and their efficiency should depend more upon their ability to mechanically cleanse the eye than upon their germicidal powers, hence copious flushings of boric acid (gr. X-oz.) 1-10000 Bichloride, weak permanganate, 1-6000 formaline or normal salt solution, blood warm, should be employed and great care exercised to prevent erosion or injury to the cornea. To accomplish this the pressure should be low and the stream directed away from the cornea.

(c) *Cornea*.—Wounds of the cornea demand first of all a thorough cleansing, which, of course, includes the removal of the foreign body. Great care must be exercised to prevent further traumatism, for all wounds (even though they are clean) that involve more than the epithelial layer are followed by the formation of scar tissue which is extremely disastrous to vision. Because of this also, unusual care must be employed to prevent infection, for ulcers of the cornea lead to further loss of tissue and blood vessel formation with a resultant dense opacity.

Rarely is it necessary to suture corneal wounds that have not penetrated the anterior chamber, and not always then. If the wound is deep and there is bulging of the floor, a pressure bandage is indicated and is usually sufficient.

After the removal of the foreign body and the wound has been cleaned, it is my practice to fill the eye with 1-3000 Bichloride ointment. This is non-irri-

tating and the ointment prevents further infection from being washed into the wound. As an additional precaution the eye should be protected against all contamination, street dust, etc.

## II. BURNS.

Of all injuries of a superficial nature none is more disastrous in its results than a burn. This is especially true of those due to chemical irritants where the substance has remained in contact with the tissue for any length of time. Burns of the lids are particularly disfiguring and loss of tissue demands plastic work. Burns and scalds of the eye ball present the same general symptoms (no matter what their cause) and their severity and seriousness depend entirely upon the extent of the structural damage. It is rarely that the surgeon is able to see the eye before the mischief is done, but should any of the corroding substance remain, every effort should be made to remove it and neutralize its effect, immediately. This is accomplished by carefully but thoroughly flushing the eye with the neutralizing solution. After these first aid measures are finished the eye should be treated with a bland non-irritating oil or ointment and the pain relieved by such measures as will prove efficacious. Great pains should be observed to prevent infection and all antiseptics and analgesics should be prescribed in ointment form. In spite of every precaution (if the burn is of any degree), adhesions are bound to form between the globe and the lid, accompanied usually with dense scars of the cornea. So taken altogether there are few injuries more serious to the eye than a burn. Iced compresses are usually indicated except when there is marked involvement of the cornea, when heat should be employed instead.

Your prognosis must always be guarded, for at the first dressing it is impossible to predict the after results.

## III. CONTUSION WOUNDS.

Contusion wounds may be classified:

1st. When the force of the violence falls on the lids and surrounding parts.

2nd. When the eyeball itself is damaged.

Blows received on the skin and orbital margins, without fracture, need little special attention. They are usually of small consequence and aside from iced compresses need no other treatment.

When the eyeball itself is damaged an entirely different state of affairs exists. The eyeball is a semi-fluid mass enclosed in a membrane possessing but very little elasticity; consequently when struck a sudden blow practically any degree of injury may occur, from simple concussion to rupture of the globe and escape of the intra-ocular contents. The first essential in these cases is to determine whether the globe is ruptured. If the tension is normal, it probably is not. A mydriatic, a pressure bandage, and iced compresses are about all that can be done as first aid measure. If, however, rupture has occurred extra precaution should be taken to prevent infection and the pressure bandage omitted. Never give a definite prognosis, for most surprising results have often occurred.

## IV. PENETRATING WOUNDS

Penetrating wounds of the eye may be caused by any and every object small enough to enter the globe. They may occur in any location and extend to any depth. The vast majority of these objects are septic and the excellent culture medium that the interior of the eye affords, aside from the direct result of the traumatism, makes for a very serious state of affairs indeed. No effort must be made to probe the wound, neither must there be any attempt (as a first aid measure) to cleanse it, unless thoroughly competent and equipped to do so. Should any of the ocular contents be protruding from the wound they should be

gently returned if possible, and if unable to return them they should be excised and the wound edges freed from them and co-adapted. An expectant attitude should be assumed—the external parts rendered and kept sterile and atropine instilled. Hot or cold applications should be made as indicated—the pain relieved and the patient kept quiet.

When the foreign body has been retained in the wound, no effort should be made at first aid to remove it unless it can be easily and exactly located and means are at hand for competent handling. To remove a non-magnetic foreign body from the eye requires special instruments and should not be undertaken without proper surroundings and assistance. It is much better to wait until it can be located and circumstances are favorable for its successful removal, than to attempt it at first aid. Should the foreign body be magnetic and the proper magnet and localizing devices at hand, an effort should be made to remove it as a first aid measure.

Generally speaking, foreign bodies should be removed, for if retained (even though sterile) they sooner or later produce damaging after results.

## V. WOUNDS OF THE ORBIT

Wounds of the orbit consist chiefly of fractures and penetrating wounds.

All fractures should be properly recognized and treated and all spiculae of bone removed.

Penetrating wounds should be thoroughly cleansed, all foreign material removed and drained.

## SUMMARY.

First aid treatment should consist mostly of good general surgical judgment, bearing in mind: Strict asepsis, mydriatic conservatism, prevention of adhesions, guarded prognosis, and the fact that special apparatus and skill are often necessary to obtain the best results.



## MEDICAL EXPERT TESTIMONY.\*

BY ELBERT WING, A.M., M.D., LOS ANGELES, CALIFORNIA.

Very great reproach has come to the medical profession because of medical expert testimony in personal injury and insanity cases. These attacks have been made by the public press, by lawyers and by members of the medical profession.

The mere mention of the subject is apt to cause a smile on the face of a lawyer who has had large experience in such cases.

The discussion of a subject already so much discussed may seem both bold and needless, but the conditions do not improve rapidly and discussion of such conditions is always desirable as long as reform is needed.

The general public and the lawyers ascribe the so-called "evils" to the medical expert, and the latter in turn contend that the law and the lawyers are responsible for everything undesirable connected with such trials.

The writer of this paper believes that the few changes in the law which may be desirable can be secured, and that the so-called "evils" are mainly due to lack of ability and honesty on the part of the medical expert witnesses. Secondly, all manner of evils arise because able and unscrupulous lawyers "use" such witnesses in the most offensive sense of that word, and also abuse them, in their efforts to belittle and destroy unfavorable testimony, and seek until they find alleged experts who will testify in their favor, but no lawyer can obtain false or misleading testimony from a medical expert witness who clearly understands his function as an expert witness before the court, and who is able and careful and absolutely honest.

These are serious assertions, but the writer of this paper believes that with

more than a reasonable degree of plausibility they may be shown to be true.

Free use is made in this paper of articles upon the subject discussed, by Drs. Geo. W. Jacoby (1), F. X. Dercum (2), Wm. A. White (3), Charles Green Cumston (4), and by Thos. J. Kelly, Esq. (5).

Two changes have been proposed in the law which governs medical expert witnesses in these cases. One (6) permits the presiding judge to exercise his judgment in selecting them. The other, urged by Dr. Jacoby, provides an officially appointed state board of medical experts. He believes it possible to keep such a board free from the taint of politics and favoritism, proposes that they should be appointed for life from candidates trained in special courses during and after graduation at the medical colleges, examined by a state board of examiners, be compelled, when called, to examine the defendant and to report to the court and to be paid from a fund assessed as costs in the trial. He thinks the fact of their official appointment would insure their standing with the court and jury, tend to discourage the calling of other experts by either side, and tend to remove the personal bias which is so unfortunate in these cases.

Dercum opposes the proposals of Jacoby vigorously. He believes that the appointment of such boards could not be kept free from undesirable influences; that properly qualified experts cannot be secured by any under or post-graduate special training; that expertness in nervous and mental diseases can be acquired only as "a result of the slow accretion of years"; that other and better qualified experts would be certain to be called. He also points out in ob-

\*Read at the meeting of the Southern California Medical Society, Redlands, May 4, 1910.

jection to the first plan, that the right of either party to a suit to submit any pertinent evidence is so inalienable and so firmly established in American law that it will be practically difficult to secure a change which limits or abridges that right.

If the custom in vogue in Europe, that of calling as medical experts only men whose ability and reputation are relatively so overwhelming that no incompetent expert can have any standing before the court or jury, were in use here, no change in the law in this respect would be needed.

In the principal European countries expert testimony is employed with the sole intention of aiding the court to determine the facts in each case, and wholly without reference to either party to the suit.

There has been an occasional proposal to abandon the use of the so-called hypothetical question, by a change in **the law**. Beyond question the use of the hypothetical question is responsible (Kelly, a lawyer, admits it) for much of the confusion and conflict in expert testimony. It is possible to frame it in such a manner that it confuses, misleads and misrepresents the evidence in the case. But when this is true its abuse, not its mere use, is responsible. The presiding judge can supervise the hypothetical question, but judges rarely exercise this privilege vigorously. If such a question infers a misleading conclusion an expert witness is occasionally permitted to say so. If not, the error must be corrected in the redirect examination. Because experts usually assist in framing these questions some discredit unavoidably attaches to them, and they cause endless trouble, and at times confusion. In answering them, prompt, frank and brief answers rob them of much power for evil. Dercum urges medical experts to remember "that the witness stand is not the place for a lecture or a consultation."

This is a suitable place in this paper for a discussion of the functions and qualifications of medical expert witnesses. In this country such witnesses have a double function. Their first duty is to examine the plaintiff or defendant, when permitted to do so, and to make a report to the attorney of the side which employs them. Such a report includes a statement of the findings of the physical or mental examination, the alleged complaints and the history of them. Such reports should show as clearly as possible what the case is from a medical, surgical or mental standpoint, and where, in the opinion of the examiner, the contention of each side is, from such a standpoint, weak or strong. The hypothetical question should be discussed and outlined. It is the examiner's professional and moral duty to make this report truthful in every detail and to inform the attorney exactly what the nature of his testimony will be. When this course is followed it occasionally happens that the testimony of the medical expert will be unfavorable to the side which has employed him; and consequently he will not be asked to testify in court and his duties in the case are terminated.

If, however, his testimony is to be favorable to the side which employs him and he is placed upon the witness stand, his function and duty abruptly change and he becomes an assistant to the court and jury in an attempt to determine the facts in the case; he is no longer the professional assistant of either side in the suit, although his services are paid for by one of them. These facts place such a witness in a somewhat anomalous position, and are, in the writer's opinion, responsible for much of the confusion and many of the "evils" connected with these cases.

Kelly lays great emphasis upon the fact that expert testimony is opinion testimony, and thinks that much trouble arises because expert witnesses are

prone to forget the distinction between the two kinds of testimony.

A medical expert witness may state the results of his examination, and his conclusions based upon it, with certain restrictions, which are indicated by the following statement, which Kelly names as among those which he may make:

The probable cause of a wound. Whether certain alleged causes could produce such a wound. Character of an instrument or instruments which could produce similar wounds. Force necessary to produce such a wound. Whether certain injuries were inflicted during life. Direction from which a blow must have come. Whether death was caused by the blow. Opinion as to the permanence of certain injuries with reasonable certainty, but not as to the likelihood or possibility of their permanence. Whether he thinks the symptoms complained of are feigned, but not what he thinks the motive. He may state what proportion of persons recover from a certain disease, and whether or not a disease is curable, but not as to whether the decedent would have recovered if he had received better treatment.

This last restriction is maintained because the law holds that whoever is responsible for an injury or illness is responsible for whatever logically results from it, and that an injured individual does not have to know or to secure the best treatment.

Who are properly qualified to testify as medical experts, and who should accept the responsibility of testifying in that capacity? Whenever it is possible to secure the service of men who are properly qualified, none others should serve. But conditions may arise under which it is impossible to secure such men, and under such circumstances others may properly serve, and if honest in their testimony, can materially assist the court and jury in the determination of the case. But Dercum's

contention is correct when he claims that proper qualification for such service can be acquired only through long and varied experience in the practice of medicine and surgery.

The reasons why poorly or insufficiently qualified men do serve as medical experts are not far to seek. It is the duty of every attorney to do the best he can for his client. The best witnesses for his uses in these cases are those who will testify favorably for his side. It is the attorney's duty to seek for such witnesses until he finds them. Testimony favorable to his side may be given either because the witness is honest in it, or it may be given simply because he is retained to give it. And testimony which is questionable by reason of inability or dishonesty is most readily obtained through men of inferior qualifications.

It is fair to ask why men who are not qualified for such service accept it. There are two reasons. The subtle flattery of the call is too much for the resistance of some people, and others accept because of the fee which the service secures.

The final qualification without which no medical expert measures up to the standard considered ideal in this paper is a high sense of honor, an educated and sensitive conscience with an absolutely implicit obedience to its promptings. The kind which a medical expert needs is as sensitive and habitual and unswerving as an aseptic technique must be to secure the best results in surgery.

Mention must be made of the personal bias in favor of one side of the question from which all kinds of experts suffer. Kelly says that it is so great that an English judge has said: "This inability of experts to testify to but one side of a subject has done much to destroy the value of expert testimony." And one Superior Court in this country has ruled that because



of this same bias expert testimony is not of much value and can often be disregarded.

A Chicago attorney of large experience once said to the writer that he could and occasionally did ignore the medical expert testimony in personal damage suits, a thing which of course he could not afford to do if the testimony were of much force or value. A medical expert witness is especially prone to this bias. First, because he is human, and next, because of the preliminary work as professional adviser to the attorney who called him.

Great care, with prompt and frank answers to all questions, is necessary in order to avoid its stigma.

The medical profession has been much maligned because its experts have differed in opinion. It is shallow reasoning that permits the conclusion that differences of opinion concerning inferences or conclusions to be drawn from proven or assumed facts are necessarily derogatory in any way. It is not true that medical experts differ in opinion more than other men do under similar circumstances. It must be remembered in considering this phase of the subject of this paper, that these differences arise concerning subjects which in their very nature lie beyond the bonds of the usual certainties. They deal with questions whose consideration naturally demands unusual ability and wide experience.

In this connection Dercum cites Carson's address, "Great Dissenting Opinions," (7) and calls attention to the fact that no men differ in opinion more or more radically than lawyers do, and that, too, is in dealing mostly with matters of record, viz.: the law and rulings of the court concerning it. Much of the machinery of the law exists for the purpose of correcting errors due to differences of opinion between lawyers, on the bench and at the bar. The Supreme Court of the United States con-

sists of an unequal number of justices, and only for the sake of securing a majority vote to settle differences of opinion. For confirmation of this assertion remember the Hayes-Tilden, the Income Tax and the Constitution in Porto Rico and Philippine Island cases.

There is practically no opposition in the medical profession to the proposed change in the law to permit the presiding judge to commit to hospitals for the insane for the determination of the mental state any cases of doubtful or contested insanity. This has been the continental custom and is satisfactory there.

The case of Harry Thaw, the murderer of Stanford White, illustrates how well such a procedure would work in this country.

Kelly is confident that much of the conflicting testimony and contests between medical experts and attorneys in insane cases arises because of the difference between the medical and legal views of insanity.

The law holds anyone who is a free agent responsible for his acts, and presumes that one who knows the nature of his act and knows it to be wrong is a free agent and is not of unsound mind. Modern psychiatrists believe and teach that a man may know the nature of his act, know it to be wrong and even criminal, and yet through an irresistible impulse be unable to refrain from committing it and be insane and not a free agent. White correctly insists that the whole dispute hinges upon the question whether a man who knows the nature of his act and knows it to be wrong can be of unsound mind to such a degree as not to be a free agent. In the first place, all men divide these cases into those in which insanity is real, and those in which it is feigned. Among those which are genuine some are so plain that anyone can see the insanity, and others are so subtle and so slight that only a skilled alienist can

show it, and between these extremes are all gradations.

So long as the prizes at stake are personal freedom or life itself, the court room the arena, and murder trials the occasion of attempts to settle the question of unsoundness of mind, fierce conflicts and dire confusion and failure of justice will result. But even under these conditions, if the medical experts are fully competent psychiatrists, are careful, methodical, impartial and strictly honest, no differences of opinion and no situations will develop of which the medical experts or the medical profession need be ashamed.

Fortunately in will cases the rulings of the court are more reasonable and less technical, and in these cases no competent and honest psychiatrist and no other honest expert witness need be confused or made ashamed.

The mills of the gods grind slowly, and in a country such as ours, one in which new theories of human government are being worked out through the medium of the common people, such mills have big contracts and are always behind their orders. But the time is coming when we shall have the mental state of alleged criminals determined in the hospitals for the insane, and only by experts of large experience and established reputation, and then our statue of Justice may remove the bangle from her eyes and look the whole world in the face, and unashamed.

In the meanwhile let the mothers and the medical colleges of the land teach their sons to love the truth for its own sake, and to hate a lie because it is mean and underhanded and not honorable, and in proportion to our successes along these lines the "evils" of medical expert testimony will disappear.

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#### RICKETS.

In a clinical study on rachitismus, Dr. A. C. Wiener emphasizes the importance of enteroptosis, which he claims is always a sequel of preceding rachitis. He also calls attention to the invariable connection of enteroptosis with every cases of scoliosis. The importance of early and energetic mechanical treatment of the bones, joints and muscles of the thorax is emphasized, especially as by this treatment many cases that would otherwise develop tuberculosis will be saved from the latter malady.

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Henry Alfred Robbins says, in *Therapeutic Record*: "It is very important to remember not to prescribe the sulphate of quinine to any patient who is taking iodide of potash, for mutual decomposition of the two drugs takes place and iodine is liberated, which may act poisonously."

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DR. H. BERT. ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW  
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## EDITORIAL

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### HODENPYL'S CANCER CURE.

Eugene Hodenpyl, pathologist to Roosevelt Hospital, made an announcement regarding cancer in the *Medical Record* of February 26, 1910, which seems to us of most momentous import. He had used the ascitic fluid from a recovered case of internal cancer in the treatment of forty-seven carcinomatous patients with most striking results. Injected *anywhere*, a selective action upon the cancer cells becomes rapidly manifest, the tumors subsiding and emaciation decreasing. These phenomena are attended by temporary local redness, tenderness and swelling in the region immediately adjacent to the tumors. The normal tissues of the body show no reaction and there are no systemic effects, even after large venous infusions. The tumor tissue becomes

softened and necrotic and is either absorbed or discharged externally. Subsequently more or less connective tissue is formed in its place.

Many of the forty-seven cases were hopeless and inoperable at the beginning of treatment.

While he was devoting himself enthusiastically to this special work he was stricken with pneumonia and died May 5, after a short illness. He was for many years pathologist to the Roosevelt Hospital, a member of the American Association of Pathologists and Bacteriologists, of the New York Academy of Medicine, and of the New York Pathological Society, of which he was at one time president. Upon his retirement from academic work in 1909, he devoted his entire time to the pathological service of the Roosevelt Hospital.



The *Medical Records* says: "The suggestion which inevitably became public, that he had found a new way of treating cancer, brought to him a flood of urgent demands for help from all over the world, mostly from inoperable and hopeless cases. The great responsibility involved in a new mode of treatment, the ceaseless pressure of pitiful appeal, and the unremitting physical and mental strain bore heavily upon him. But the possibilities of service to science and more directly to his suffering fellowmen, outweighed all personal considerations and led him to ignore the warnings of his professional friends. So at last he was able to offer but slight resistance to what seemed at first a relatively slight attack of pneumonia."

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### VALUE OF CARBOHYDRATE AS FOOD.

Until a few years ago a diet was valued on the basis of its calorificity and its content of protein, fat and carbohydrate. No one thought of assigning to carbohydrate any role other than that of being a source of heat and energy.

Recently, however, there has accumulated evidence sufficient to show unmistakably that carbohydrates do something more than supply energy and heat, and while at the present time this something cannot be defined clearly, some conclusions can be drawn. A few of these dietetical studies are so simple in their planning that a telling of them might be of interest. An individual maintaining equilibrium on a constant diet of fat and carbohydrate

and a liberal quantity of protein when the carbohydrate is removed and the calorific value of the carbohydrate made up with fat shows an immediate increase in the breaking down of the tissues. It is evident that had the carbohydrate supplied only heat and energy, replacement by its equivalent of fat could not have led to an increased catabolism. Another experiment seems to be equally interesting. A man subsisting on a diet poor in protein and fat and rich in carbohydrate shows only a slight nitrogenous excretion, but when the carbohydrate of the dietary is replaced by its isodynamical equivalent of fat a pronounced rise in nitrogenous elimination and a rapid loss of weight take place.

While further experiments might be cited, the two just mentioned show clearly that a relationship must exist between protein metabolism and carbohydrate utilization, and while the time is not ripe for a precise statement of this relationship it might not be out of place to refer to a conclusion which seems unavoidable—a conclusion which was hinted at many years ago both by clinical workers and by experimental physiologists—namely, that when the tissues break down some of the nitrogenous products may be re-utilized in the rebuilding of the cells—provided abundant carbohydrate is available.

Should this interpretation be upheld by future studies our conception of the dietetic value of carbohydrate will be broadened and the physiological diet will be represented by one of less protein and more carbohydrate.

L. B. S.

## COLLEGE OF PHYSICIANS AND SURGEONS, UNIVERSITY OF SOUTHERN CALIFORNIA.

President Bovard can well feel proud of the first class to graduate from the College of Physicians and Surgeons under his charter.

The Commencement of the U. S. C. was in the Temple Auditorium, corner of Fifth and Olive streets, at 10:30 a.m. Thursday, June 16. The *Los Angeles Times* says:

"The commencement exercises were the crowning ceremonials of the week, for not only were 140 candidates for graduation given the degrees to be conferred by the University on the graduates of the various colleges, but more than 250 persons wore the cap and gown required by the various exercises.

"Shortly before 10 o'clock in the morning the line of graduates, professors and directors of the University formed at the First Methodist Episcopal Church, Sixth and Hill streets, and as Dr. Bovard left the church the head of the procession was just entering the doors of the Auditorium two blocks away.

"The order of march follows: Marshals of the exercises, candidates for certificates and diplomas, candidates for the various degrees of graduate of pharmacy, doctor of dental surgery, bachelor of laws, master of laws, doctor of medicine, bachelor of divinity, bachelor of arts, bachelor of science and master of arts.

"Then followed the faculties of the University in order, the official guests of the University, trustees, president of the board and chaplain of the commencement exercises, while the presi-

dent of the University and the speaker of the commencement brought up the rear.

"As the procession entered the Auditorium the 'Triumphal March' from Naaman was played by Walter Fisher Skeele, dean of the College of Music.

"Warren F. Day, commencement chaplain, offered prayer and he was followed by James A. B. Sherer, LL.D., president of Throop Polytechnic Institute, who delivered the commencement address.

"Dr. Sherer took for his topic, 'The Books of Lincoln,' and in a masterly address showed that the three books that were Lincoln's mainstay in early life formed his character.

"These books, Euclid, Shakespeare and the Bible, brought out the threefold character of Lincoln's life. Euclid gave exactitude in all things, Shakespeare brought out the imagination, while the Bible brought out the greatest side of Lincoln—his goodness, his humanity and his tenderness, said the doctor.

"It is hard to account for Abraham Lincoln. He would seem almost to have been a winged prophet of the Lord."

Dr. Sherer was listened to with the deepest interest by an audience that packed the great auditorium to overflowing. The following received the degree of Doctor of Medicine:

Addie Brown Allen, Arthur Charles Carlson, Edwin Morenhout Clinton, Clifton Earl Gage, Harry James Hoar, Walter Charles Koebig, A.B.; Charles Esky Mordoff, Frederick Watson Parrish, Herbert Augustus Rosenkranz, A.B.; Clayton Grube Stadfield, James Thornton, Ewald Alfred S. Werner. Twelve in all—one woman and eleven

men. The annual banquet in honor of the graduating class by the faculty and alumni was given Commencement evening at the Virginia, Long Beach. Over one hundred went from Los Angeles on special train. Dr. Charles W. Bryson, Dean of the College, was toastmaster.

The following were the toasts and the speakers:

"Our College, Old and New," James Harvey Seymour.

"The Strenuous Life," Lyman Brumbaugh Stookey.

"The Vicissitudes of a Young Practitioner," Williard E. Carter.

"The Wise (?) Graduate," Harry James Hoar (1910).

"Woman in Medicine," E. L. Leonard.

"Optimism and Philosophy," Sylvester Gwaltney.

"Good Night," Thompson B. Wright.

The whole affair was successful in every sense of the word.

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### CLASSIFIED INSURANCE RISKS.

It has long been apparent that in the present rating in life insurance a serious injustice was done to the policy-holder who is in a healthful occupation or who had an excellent family history.

At a recent meeting of the Actuarial Society of America, held at the Hotel Astor, steps were taken to inaugurate a new system of judging whether or not a prospect is a good or bad risk. When the results of the New Medico-Actuarial Mortality Investigation are adopted, as they probably will be by all the big companies in the United States and Canada, people who seek policies will not all be judged alike. In the past this has been more or less the case.

Under the new system a man seeking to obtain a policy will be judged according to his method of livelihood and its hazards, or the peculiarity of his family history, and the hazards of heredity, will be classified in a special way. It is proposed to create about 145 special classes, for each of which there will be a different premium. The healthy editor, for example, will pay a different premium from the healthy saloon-keeper. The policy seeker who has had two deaths among his near ancestors from tuberculosis will have to pay a different premium from the policy seeker whose family tree contains a similar record with regard to cancer or Bright's disease. Statistics for these special risks have been in preparation during the past year by a committee of the chief actuaries of the leading life insurance companies. These investigations will be basic in the statistical investigations which the committee proposes to continue. Before its labors are finished every profession and every common medical history will have been studied and rated. The investigation to which reference is here made is the greatest step toward still further reducing life insurance to an exact science that has been taken in a generation. At the meeting of the Actuarial Society at the Hotel Astor, Arthur Hunter, the secretary of the joint committee, reported progress and gave an explanation of the extent of the investigation so far made. Questions raised by actuaries in regard to controversial points were answered by him. *The Independent* in the course of an editorial on this subject, says: "In this connection it is also intended to investigate the mortality



among women; four groups having been selected, namely: One, spinsters; two, widows; three, married women with husband beneficiaries; four, married women with beneficiaries other than husbands. One of the most important results of the investigation according to expectation, will be the department of a new standard table of heights and weights; a special point will be made of obtaining the mortality among those who are more than 25 per cent. over weight or more than 15 per cent. under weight. It is now expected that the desired data will be in hand by June, 1911."

### CLEFT PALATE OPERATIONS.

I do several operations for cleft palate, the type of operation depending upon the following factors:

1. Age of the patient.
2. Extent and nature of the cleft.
3. Character of the palatal arch.

#### OPERATIONS.

1. Lane's flap operations.

Extensive clefts in very young children can best be closed by one of the plastic flap operations devised by Dr. Arbuthnot Lane. The entire muco-periosteal covering of one-half of the superior maxilla can be utilized for flaps. If necessary, the flap may extend out over the alveolar border.

These extensive raw surfaces granulate with surprising rapidity. The only case in which I have used this method, died, although good closure was secured. The baby died of a mouth infection closely resembling diphtheria.

2. Brophy's operation.

This operation is adapted to all moderately wide clefts in children under six

months of age. The two halves of the jaw are forcibly crowded together, and held in contact with silver wire and lead plates.

I have never done this operation, as it has seemed to me unsurgical and deforming. Dr. Brophy, however, has had wide experience and has some excellent results.

3. Ferguson's operations.

These are flap operations. The first is adapted to all clefts of hard and soft palate not over one-half inch wide, with thick muco-periosteal covering of the edge of the cleft. This operation I have done in a number of cases with good results.

The second operation is adapted to a high palatal arch. A flap is turned down from one side to meet its fellow on the other side. The young woman shown here tonight, was operated by this method with almost perfect closure of a very wide cleft.

The third is Langenback's or simple flap operation. This is the oldest of all cleft palate operations, and is adapted to all cases where sliding flaps of sufficient width and vitality to cover the cleft can be secured. Most of my cases have been operated by this method, and it has given me a fair measure of success. This boy of nine was operated by this method, and the result is almost ideal.

4. Davies-Colley operation for very wide clefts in children of all ages.

This operation can only be properly understood by reference to the charts. It can be employed for second operations after failure by other methods.

In conclusion, I wish to say that this work requires patience and good judgment in selecting the type of operation

for each case. There are many difficulties and disappointments, but all cases of cleft palate can be improved.

CHAS. D. LOCKWOOD.

### SNAKE POISON TREATMENT.

Year after year the victims of snake bite all over the world are becoming more numerous. It is such a menace that we believe the government would be justified in offering a premium for dead rattlers.

A simple method of extermination is to turn hogs loose where rattlers abound. The hog is immune and eats the snake with evident relish. In fact, a professor in the Chicago University has been eating rattlesnake meat and he says it tastes very much like mountain trout.

The most clear and concise statement we have seen on the treatment of snake-bite is by \*Castellani and Chalmers. Snake poisoning consists in the hypodermic or intravascular injection of a series of poisonous principles which act chiefly upon the nervous system and the blood. The virulence of the poisoning depends upon the ratio of the poison injected to the size of the animal. The same quantity of poison will therefore have a more serious effect upon a child than upon an adult. In order to prevent the poison getting into the general circulation:

(1) Stoppage of the flow of blood and lymph from the affected area.

(2) Free opening of the poisoned area.

(3) The neutralization of the poison locally. A person is usually bitten in the arm or leg, and in such a case the old treatment advised by Celsus two thousand years ago should be carried out by applying a tight ligature round the affected limb on the proximal side of the wound. To do this successfully the ligature must be applied to the arm or thigh—i. e., where there is one bone—and not the forearm or leg. After some attempts at neutralization of the poison the ligature must be loosened for a couple of seconds and reapplied, and this must be repeated. It must be kept on at least twenty or thirty minutes.

The next step is to cut not merely around the aperture of the fangs, but also to extend the incisions along the course of the veins and lymphatics and in some cases remove the piece of skin marked out.

The next indication is to diminish toxicity of the poison as much as possible, which is done by applying a strong solution of permanganate of potash. Carry the crystals with you and if there is delay in getting water with which to make solution apply crystals direct to wound. Afterwards treat these wounds with boric fomentations frequently repeated.

Then neutralize the poison in the system by the intravenous injection of 100 c.c. of fresh antivenene.

Maintain the circulation by binders to the abdomen and bandages to the legs so that as much blood as possible may be available for the brain and the medulla. Also use applications of warmth, alcoholic and ammoniacal stimulants and hypodermics of strychnia as indicated.

\*"Manual of Tropical Medicine," by Aldo Castellani, M.D., (Florence); Privat Doctent (Naples), and Albert J. Chalmers, M.D. (Vic. & Liv.); F. R. C. S. (Eng.); D. P. H. (Cam.). New York, Wm. Wood & Co., 1910.

## EDITORIAL NOTES

Dr. Harold Wickett of Anaheim is traveling in Europe.

Dr. Rexwald Brown of Santa Barbara has been touring the East.

We regret to hear of the illness of Dr. Garrett Newkirk of Pasadena.

Dr. R. D. Potts, recently of Oxnard, Cal., will locate in San Antonio, Texas.

Dr. Yacoubi, formerly of Whittier, has located at 574 East Villa St., Pasadena.

Dr. Bim Smith of Hermosillo, Mexico, is spending a few months in European hospitals.

Dr. D. C. Strong of San Bernardino was successfully operated upon for gall stones June 23rd.

Dr. Thos. A. Neal of New York, with his mother, is spending the summer in Prescott, Arizona.

The Shannon Copper Company is going to build a new \$15,000 hospital, to be located at Clifton.

Dr. T. P. Daly of Congress, is enjoying a well earned vacation in Los Angeles and San Diego.

Dr. Howard B. Gates of San Jose has been spending some time in Los Angeles and may locate here.

Dr. J. M. Armstrong, one of the best general practitioners in Los Angeles, has removed to Alhambra.

Stovine received its name by turning into English the name of its discoverer Fourneau, which is the French for stove.

Dr. John K. McDonnell of Prescott, has returned from San Francisco, where he spent three months in post-graduate work.

Dr. A. F. Zimmerman of Los Angeles is spending a few months attending the surgical clinics of the Old World.

Dr. George E. Goodfellow, the distinguished surgeon of California, Arizona and Mexico is seriously ill in Los Angeles.

Dr. Harry E. Marxmiller of Los Angeles, attended the A. M. A. in St. Louis and then visited relatives in Louisville.

Because of the difficulty of securing internes in California, Dr. C. H. Whitman, Superintendent, imported four from Chicago.

Dr. John E. Janes, president of the Pasadena Medical Society, has just returned from a trip to New York and other Eastern cities.

Dr. Frank L. Wood died at Long Beach, Cal., June 29th. Dr. Wood was 36 years old and graduated from Harvard Medical College.

Dr. John E. Bacon has moved from Tombstone to Miami, where he has accepted the position of Chief Surgeon in the Company Hospital.

Dr. R. W. Graham, formerly of Prescott, is now studying in London, after having spent six months attending the Vienna Clinics.

Dr. J. A. Munk of Los Angeles was elected president of the National Eclectic Medical Association at their recent annual meeting in Boston.

Dr. Scott Blair's salary as superintendent of the Southern California Hospital for the Insane at Patton has been raised from \$3,600 to \$4,000.

As we go to press the members of the American Institute of Homeopathy are having a fine time attending the annual session of that organization in Pasadena.

Gustavus Adolphus died at thirty-eight, Charles the XII and Lord Byron at thirty-six, Raphael and Burns at



thirty-seven, and Alexander the Great at thirty-three.

Dr. Walter E. Deering and Miss Lilian Ross Moody, both of Hollywood, were married June 20th and are spending their honeymoon in Del Monte and Lake Tahoe resorts.

The Kaspare Cohn Hospital, a fine building that cost over fifty thousand dollars, was dedicated June 19th. It is well located in the section of Los Angeles known as Boyle Heights.

August 1st Dr. W. H. Fales, the chief surgeon, will leave for Boston and other Eastern cities, where he will spend four months. During his absence Dr. J. H. Tebbitts will be in charge.

Dr. H. G. Rosenburger of Whittier, Cal., and Miss Faye West of Oscaloosa, Iowa, were married at the residence of the bride's parents on July 15th. They will arrive in Whittier about July 22d.

Dr. R. N. Looney, the retiring president of the Arizona Medical Association, is spending the month of July hunting and fishing near Eureka in Northern California.

Dr. C. A. Hilliard, recently of Providence, Rhode Island, has located in Redlands. Dr. Hilliard received the degrees of B.A. and M.A. from Brown, and in 1904 received the degree of M.D. from Yale.

Dr. J. W. Trueworthy, who was the attending physician of the late "Lucky" (E. J.) Baldwin, recently accepted from the executor fifteen thousand dollars as payment in full for his professional claim against the estate.

Dr. Fitch C. E. Mattison of Pasadena has been eating from gold plates with his feet under the mahogany of Adolphus Busch at the latter's palatial home in St. Louis. We venture the guess that Fitch drank no Anheuser that day. "Pommery Sec, please."

Thirty-two per cent of all students in the theological schools of the United States—1909—had received a college degree, twenty-one per cent of the students in law schools had received a college degree while only seven per cent of the students in medical schools had received a college degree.

Dr. Wilson Lockhart died suddenly in the Marion building at Seattle on April 28th, of an apoplectic stroke. He graduated from Jefferson Medical College, Philadelphia, in 1851. Although about 80 years old he was in active practice up to the time of his death. Los Angeles physicians of three decades ago will remember him.

Los Angeles secured the 1911 meeting by a close vote. Buffalo had 58 to Los Angeles 61 votes. Dr. MacGowan and Dr. H. Bert Ellis were both members of the House of Delegates, but Dr. MacGowan was too ill to attend the meeting and he says all the credit of bringing the greatest medical organization in the world to Los Angeles is due Dr. Phil Jones and Dr. Ellis.

Some of the Phoenix physicians have sustained considerable losses by fire during the past few weeks. In the Adams Hotel fire Drs. Martin and Simpson lost all their office equipment; in the same fire Drs. Craig and Dysart sustained considerable loss by having the contents of their offices moved hurriedly to avoid burning. On June 28th, the entire contents of the office of Dr. Francis H. Redewill were destroyed by fire.

Col. Francisco Martinez Baca, formerly Professor of Pathology in the School of Medicine of Pueblo, Mexico, and Professor of Psychology in the Normal School of the same city and more recently, by appointment by President Diaz, Director of the Penitentiary in the City of Mexico, is in Los Angeles and is considering locating in California. Colonel Baca is the author of

several works. One, entitled "Studies Criminal Anthropology," has had a wide vogue among those interested in that line of scientific endeavor.

We have received the following reprints from Dr. Horace G. Wetherill: (1) Surgical Haemostasis. (2) The Abuse of Hypodermic Stimulation during and after Surgical Operations. Dr. Wetherill says: "No strychnin, no spartein, no digitalin, no nitroglycerin—no whip and spur for a tired and jaded and played out or overworked heart, if such he has—no piling up of new poisons to impose additional burdens on the organs of elimination. Let him alone. Keep him warm and very quiet. Give him all the water he can absorb by the avenue of choice; mouth, rectum, under the skin, or within the peritoneal cavity, and as few drugs as possible."

Twenty nurses graduated from the Clara Barton Hospital and received diplomas at the Goldberg-Bosley Hall, Sixteenth and Flower streets, June seventh. The exercises were brief but impressive. The class of '10 comprised Mildred V. Parnell, Paducah, Ky.; Mary L. Jones, Wentworth, N. C.; Helen E. Fitzgerald, New Brunswick, Canada; Violet A. Richards, Garforth, Eng.; Pauline C. Semmler, Dysart, Iowa; Ruth D. Palmer, Modesto; Martha Bry, Los Angeles; Rose Grenagaire, Paris, France; Anna M. Smith, Kansas City, Mo.; Lois A. Forester, Ypsilanti, Mich.; Mabel A. Thompson, Pueblo, Colo.; Ines G. Traut, Ashtabula, O.; Martha Stickrod, Danville, Ill.; Helen Walker, Fort Collins, Colo.; Mabel L. Beck, Deadwood, S. D.; Lora McGhee, Los Angeles; Lulu E. McPherson, Orange; Frances C. Bindon, Ottawa, Ont.; Nelle J. Forester, Ypsilanti, Mich.; Kathleen O. Arnold, Honolulu.

The Training School for Nurses of the Pomona Valley Hospital graduated three nurses on the evening of June 30.

Catherine E. Smith, who has been running a disreputable midwifery establishment in Los Angeles for years, was recently convicted of kidnapping a child. An effort was made to get the Board of Health to ask for her probation. Mayor Alexander said: "I know the woman myself, and I think she ought to be put out of business. She is no different from any other criminal and she has defied the authorities for years." "Still," said Dr. Elmer A. Clarke, "the attitude of this Board may send her to prison. I would not want to vote with that as a result." "Well, I would," said Dr. Geo. L. Cole. "I will do it right now. Years ago I told this woman to stop her nefarious work and told her that I would aid in sending her to prison if I could. I am ashamed that a few physicians have defended her because—well, because there was good reason for them to do so, but I feel that her punishment is well deserved." Dr. Cole and the Mayor said the right word at the right time in the right place.

Dr. Randolph W. Hill of Los Angeles and Miss Edith Grace Thatcher of San Francisco were married in the bay city in All Saints' Episcopal Church on Tuesday, June 28th. Dr. and Mrs. Hill will be at home to their friends in the Hotel Alexandria after September 15th.

#### ASTHMA.

H. J. Smith reports a case of bronchial asthma, in which relief was not secured from morphine hypodermically, amyl nitrite, or the burning of powders containing stramonium, lobelia, potassium nitrite, etc. The bowels were then cleared by calomel, and waters kept constantly heated in the room, to which was added oil of eucalyptus. This oil, with beechwood creosote and chloroform, were also used by inhalation from cotton. Almost immediate relief was noted. In one week's time the patient was out, and no attacks have since occurred.

## BOOK REVIEWS

**SURGERY: ITS PRINCIPLES AND PRACTICE.** In five volumes. By sixty-six eminent surgeons. Edited by W. W. Keen, M.D., LL.D., Hon. F.R.C.S., England and Edinburgh, Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Volume V. Octavo of 1274 pages, with 550 illustrations, 45 in colors. Philadelphia and London: W. B. Saunders Company, 1909. Per volume: Cloth, \$7 net; Half Morocco, \$8 net. For sale by Fowler Brothers 543 South Broadway.

The reviewer reaches this last volume with a feeling of regret that his labors are about finished and that he can no longer look forward to a volume of this series appearing from time to time.

Only one who has edited these systems as I have can appreciate to the full the statements of the editors of this work, that in the midst of the incessant demands of strenuous lives, they have given their best, often, as editors well know, at the expense of comfort, recreation and sleep; but the monument to surgery that they have erected will amply repay them for the labor that was expended.

In the last two volumes John Chalmers DaCosta's name is added to the title page as a co-editor with Keen. Da Costa is one of America's best surgical writers with an extended surgical experience.

The undertaking has been peculiarly fortunate in that death removed but one author, Lennander, before his work was finished. Mikulicz did not even have the opportunity to begin his work.

Like all systems, there has been some departure from the relative order of the chapters as originally announced. This is due, in the main, to exigencies of extremely busy lives; but as has been said—men with ample leisure would hardly have performed the task satisfactorily. The prospectus promised four volumes of 800 pages each, 4000 in all; but the completed work covers nearly 5500 pages, besides a large increase in the amount of text by using

smaller type; a total increase of over 25 per cent. without any increase in price.

This system is in reality a series of books upon special subjects, bound together in five volumes, making a continuous whole. For example, the opening chapter of this volume is a book of 333 pages by Rudolph Matas, of New Orleans, on the surgery of the vascular system. Its clear and lucid text and graphic and well chosen illustrations make this a standard contribution to the literature of surgery. The greater safety of aseptic open pericardiotomy, without the uncertainties of puncture and the risk of injury to the heart, is indorsed by Matas. We are glad to see that the method gains ground gradually, but surely. The "triangle of safety" described by Voinitch and Sianojentsky, however, is still perhaps the selective site and method for paracentesis pericardii with most surgeons, but it will probably not continue to be so. However, as Sherman, of San Francisco, aptly says: "The road to the heart is only two or three cm. in length in a direct line, but it has taken surgery nearly 2400 years to travel it."

So, also, in the next article by Montgomery, Fisher and Bland, a book of 236 pages, possibly the first twenty-seven pages could, with advantage, have been omitted. They seem rather elementary for a work of this sort. We cannot refrain from indorsing the statement that anesthesia enables the examiner to make a more thorough and systematic investigation of the pelvic organs and that it would be distinctly advantageous to administer an anesthetic in making all first-visit examinations.

Fisher has written a good chapter on the Surgery of the Vulva and Vagina; the usual operations are well described and illustrated. In addition, space is given to Montgomery's operation for



lacerated perineum, which has been practiced in the Jefferson Hospital, Philadelphia, with success, during the last five years. It is simple and easily performed, and is certainly to be recommended.

Fistulas, peculiar to the female, that is, opening between the urinary or the intestinal canal and some part of the genital tract, are of recent years much less frequently seen than formerly; but nevertheless, they are of great importance and the pages devoted to their consideration in this book are well chosen. In Montgomery's chapter, devoted to Surgery of the Uterus, broad ligaments and fallopian tubes, attention has been paid, not alone to the greater and more spectacular conditions, but also to those that are in the day's work, as chronic cervical catarrh, chronic endometritis, metritis and curettage; but we regret to note the absence of a description of congenital split and erosion of the cervix, as described by Leopold and Fischel, the former as early as 1872, in the *Gesellschaft für Geburtshulfe Leipzig*, July 15, 1872.

Montgomery seems to prefer the Pfannenstiel incision, particularly when performing his own method of shortening the round ligaments. Neither of these procedures has made much headway in the West, the former not at all, and the latter to a small degree only.

Chorio-epithelioma receives less than a page. More would have been desirable.

Hardly will American wives meet the condition as decided by Montgomery to be the normal one, when he says, page 583, that a healthy woman, living in wedlock through the greater part of her child-bearing period, should give birth to ten children.

John H. Gibbon, of Philadelphia, has written sixty-seven excellent pages in surgical technique, which will be interesting reading, not alone to the younger surgeon. This is followed by Bickham's article on Ligation of Arteries in Con-

tinuity. It is carefully and well prepared and has not neglected any point, great or small. The article by Warbasse, in operations on bones and joints, and that by Bickham on amputations, are all that could be desired and are really very full expositions of the subject.

John B. Roberts, of Philadelphia, has written a very valuable article on plastic or reconstructive surgery. After a consideration of the history and the general principles of plastic surgery, specific and valuable instructions are given for the application of skin graft and reconstruction work in various parts of the body.

No one is better qualified from extended experience, than Estes, of Bethlehem, to write upon the surgery of accidents. Reading this article will repay one for the time spent. It is evidently the work of one thoroughly and intimately familiar with the organization of a surgical staff, not alone to meet emergencies, but to cope with them when they arise.

Samdstroen, in 1880, and Welsh, in 1898, have made it possible to correctly interpret the conditions caused by the parathyroid glands, and modern surgery presents no more attractive field than the further study of these glands. Very wisely, this chapter has been given to Charles H. Mayo. We are glad that he differs from Halstead's statement that there is no difficulty in identifying the parathyroid with the naked eye in the course of an operation. Rather has our experience accorded with Rogers and Ferguson, who found that of 189 pieces of human tissue removed as presumably containing parathyroid glands, only 61 pieces, or 32 per cent., were shown by microscopic examination to contain these organisms. Of course, as yet, our knowledge of parathyroid is not very definite, yet light is commencing to dawn, and this article aids materially in bringing order out of chaos. Mayo justly says that a criticism that

can be quite generally applied to all surgery of the neck, is that severe and desperate procedure is often undertaken through small and badly placed incisions. He prefers the transverse collar incision with elevation of the un-separated skin and platysma muscle, sufficient to expose the sternal attached muscles; a vertical incision separates the hyoid muscle in the midline of the thyroid body.

Frazier's article on the intracranial surgery of the fifth and the eighth nerve is a classic, Keene's addendum on the means of opening the skull, is also of value.

Lennander and Zachrisson, of Sweden, have written two very valuable papers on local and subarachnoid spinal anesthesia. Fortunately, most of this paper was finished, before surgery sustained its great loss in the death of Lennander, whose life's work is a monument to human endeavor under the most trying conditions; an invalid, he could spend but six hours a day out of bed.

Armstrong's (of Montreal) chapter on the surgery of the infectious diseases, is interesting, in that it gathers together in concise form, the various complications of many diseases that may be relieved by surgical means.

A very fair and just exposition of the use of the X-Ray and radium in surgery is that by Codman, of Boston. The concluding chapters which are cited to show the completeness of this work to the smallest detail, are those on the legal relations of the surgeon by Carson, of the Philadelphia bar. The laboratory as an aid to surgical technique and surgical diagnosis, by Coplin, and the surgical organization of a hospital, by Ochsner.

And thus the work of the reviewer is finished, a pleasure, rather than a work.

WILLIAM A. EDWARDS.

THE ELEMENTS OF THE SCIENCE OF NUTRITION. By Graham Lusk, Ph.D., M.A., F.R.S., Edinburgh; Professor of Physiology at Cornell Medical School, New York. Second Edition, Revised. Octavo of 402 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$3 net.

The aim of this book is to review the substratum upon which rests the substratum of nutrition both in health and disease. In the introductory chapter the author reviews the progress in our knowledge of nutrition, beginning with the "Aphorisms" of Sanctorius, (Venice 1614) and following with a rather detailed account of the work of Lavoisier, Liebig, von Voit, Pettenkoffer, Pflueger, Rubner and many others less widely known.

The second chapter discusses Starvation. An intelligent basis for the understanding of the process of nutrition is best acquired by a study of the organism when it is living at the expense of materials stored within itself, as it does in starvation.

Chapters IV and V are devoted to a discussion of the influence of protein food. The recent interest in the "low protein" diet advocated by Chittenden gives these chapters in Lusk's work an especial importance.

Proteins are now definitely known to be constructed of chains of amino-acids. Emil Fischer has synthetically built up protein bodies (peptids) closely related to peptone.

The building up of these bodies is accompanied by dehydration; their breaking down is a hydrolytic cleavage.

The digestion of proteins is a hydrolytic cleavage resulting in peptone and a series of amino-acids. At the moment of absorption, synthesis of these products of hydrolytic cleavage begins: Serum albumin and serum globulin are among the products of synthesis. The proteins of muscle, gland and nerve tissue are also built up.

Any excess of ingested protein over and above the amount actually required

in construction (growth or repair) is promptly catabolized.

One of the earliest cleavages separates the protein of the amino-acid molecule into a nitrogenous and a carbonaceous portion. From the carbonaceous portion sugar is at once made. In phlorhizinized animals this sugar early appears in the urine; in normal animals it would be used in the usual way. This accounts for the fact that sugar never disappears from the blood nor glycogen from the liver or muscles of a starving animal.

When protein is ingested in excess fat may be deposited. It is likely that this fat is built up from the sugar and glycogen, as when carbohydrates are given in excess. Later chapters of this valuable work are devoted to: Influence of Fat and Carbohydrates; Influence of Mechanical Work on Metabolism; A Normal Diet; Food Requirements during the Period of Growth; Metabolism in Anaemia, in Diabetes, in Fever, Purin Metabolism-Gout, and finally Chapter XV Theory of Metabolism. The chapter on Diet and Metabolism in Disease is of especial value to the clinician.

"However clearly formulated the laws of metabolism may be, and many of them are as fixed and definite as are the laws of physics and chemistry, still *the primary cause of Metabolism remains a hidden secret of the living bioplasm.*"

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MODERN TREATMENT is the title of a handsome work in two volumes recently announced by Lea and Febiger. The work is being edited by Hobart Amory Hare, assisted by H. R. M. Landis.

Volume I will be devoted principally to the Treatment of Disease by Non-Medicinal Measures. In this department the University of California is represented by Dr. W. Jarvis Barlow, who writes on "Climate, General Considerations, High Altitudes and Low Altitudes." There is also a chapter on

"Tuberculin as a Therapeutic and Diagnostic Agent," by Dr. F. M. Pottenger, of the Pottenger Sanatorium. There is also a chapter in this volume on "The Treatment of Infectious Diseases," written by Landis, S. Dana Hibbard and half a dozen other eminent men. Volume II is divided into ten sections: Diseases Due to Parasites, Diseases of the Brain, of Nutrition, of the Digestive System, of the Respiratory System, of the Nervous System, of the Genito-Urinary Apparatus, of the Skin, of the Eye, of the Ear and Diseases of the Circulatory System. The University of California is represented in this volume also by a chapter on "Diseases of the Liver, Gall-Bladder and Pancreas from the Medical Standpoint," by Herbert C. Moffitt.

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A TEXT-BOOK OF PATHOLOGY. By Joseph McFarland, M.D., Professor of Pathology and Bacteriology in the Medico-Chirurgical College of Philadelphia. Second edition. Octavo of 856 pages, with 437 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$5 net; Half Morocco, \$6.50 net.

This book is quite equally divided into General Pathology and Special Pathology. The eleven chapters of General Pathology and ten embracing Special Pathology with the very complete index facilitate quick reference to any desired subject.

Familiarity with McFarland's "Pathogenic Bacteria" leads one to expect much of this author in his Text-Book of Pathology. Experiment upon ova of lower animals has furnished some light upon the etiology of foetal monsters. "It is now known that by jarring, rotating and transposing the egg during its early segmentation definite monstrous developments can be determined."

In discussing "Regenerative Tissue Changes," in Chapter VI, the author allows "healing by first intention" to occupy an inconspicuous place well along in the chapter. It would seem



that a subject of such importance, a process of repair that we have a right to expect in most surgical wounds of election, should logically occupy first place in a discussion of healing of wounds.

Determining causes of tumors are given from the "Mechanical Theory" of Virchow, to the latest studies of Protozoa by Gaylor, Roucali, Sanfelice and others. McFarland allows to each the value that our present understanding would indicate. Speaking of the parasitic theory he says, "Though the parasitic theory of tumors is very attractive, and though many of the apparent difficulties in the way of its acceptance may be explained away, its demonstration at the present time is far from complete."

Chapter IX, Parasitism, is very complete. The recent research of Darling, at the Isthmus of Panama, into the cause of a febrile affection observed there, and a description of the *Histoplasma hominis* is given. *Histoplasma hominis* is almost identical in appearance with the Leishman-Donovan bodies. McFarland states, "The nature of this parasite has not been determined, and it is not known whether it is an independent adult organism or a developmental stage of some other."

Under the Specific Granulomata, syphilis is discussed at length. Some excellent views of *Treponema pallidum*, impregnated with silver, are shown. The validity of Colles' and of Profeta's law is questioned. "By studying the blood of the mothers of congenitally syphilitic children by Wassermann's method, it has been found that they contain the specific bacteriolytic amboceptors. This justifies the conclusion that the mothers are always infected, though the disease fails to manifest itself in the usual way."

This work is well illustrated, well indexed, and contains the most recent findings of research in the field of Pa-

thology. A review of this book would not be complete without comment upon its literary qualities. The author is to be complimented upon his graceful, fluent diction. It is a genuine pleasure to acquire knowledge in so readable a form.

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A TEXT-BOOK ON THE PRACTICE OF GYNECOLOGY FOR PRACTITIONERS AND STUDENTS. By William Esterly Ashton, M.D., LL.D. Fellow of the American Gynecological Society; Professor of Gynecology in the Medico-Chirurgical College, and Gynecologist to the Medico-Chirurgical Hospital, Philadelphia; formerly lecturer on Gynecology in the Jefferson Medical College, Philadelphia; one of the founders of the *Congres International de Gynecologue et D'obstetrique*; Member of the American Medical Association, etc. With 1058 new line drawings, illustrating the text, by John V. Alteneder. Fourth edition, revised and enlarged. Philadelphia and London. W. B. Saunders Company.

This very comprehensive work of over a thousand pages which has gone into the fourth edition revised and enlarged is especially meritorious as a handbook for students. The author has taken great pains in his detail of gynecologic conditions both in the pathologic classification and in the subject of treatment. Taking as he says nothing for granted, but stating what should be done in every case with illustrations and directions so explicit that they may be intelligently and easily followed. One meets with few handbooks whose authors consider it worth while to dwell with such particularity as to leave nothing to the imagination. The work discusses both the medical and surgical aspect of gynecology and the author has selected what in his judgment should be the most approved methods of treatment. Peculiar and atypical conditions are discussed after the usual and commoner conditions have received proper consideration. In this respect the author does not wish to be understood as implying that methods employed by others are without value, but has "been guided solely by the desire to present a treatise which shall give a thoroughly detailed account of the practice of gynecology

from the standpoint of a general practitioner and the student of medicine." In this respect this work must occupy a high position and the number of editions into which it has passed is a sufficient mark of its popularity. The illustrations, which number 1046, are all new line drawings and are a somewhat pleasing change from the wash drawings and photogravures of works of less comprehensive pretensions. It is pre-eminently a teachers' book to be recommended to students and practitioners unfamiliar with the technic and details of gynecologic operations. To the surgeon of wide observation and experience many of these details must seem superfluous. But when it is remembered that this work is particularly addressed to those unfamiliar with those proceedings its province and scope is obvious. Thirty or forty pages of the closing chapter of the treatise contain brief reference to the diagnosis, pathology and treatment of intra-abdominal conditions such as appendicitis, perforative intestinal lesions, cholecystitis and gastric ulcer, together with a discussion in some detail on lesions of the kidney and the technic of nephrorrhaphy.

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**CONSUMPTION—ITS PREVENTION AND HOME TREATMENT.** By Thomson, M.D., Medical Superintendent, Liverpool Sanatorium. A guide for the use of patients. Oxford Medical Publication. London Frowde, Hodder & Stoughton, Oxford University Press, Warwick Square E. C., 1910.

It has been well said that most of our consumptives must depend upon home treatment. Just now, of course, the sanitarium pendulum is in the full height of its swing, and yet good air, good food, proper mode of living, and good medical supervision can be obtained by the patient with limited means in his own home as well as in an institution. The only difference, lots of times, lies in the fact that the patient appreciates the institution more because he has to pay so much more for it. Inasmuch as the majority of

consumptives are persons of limited means, they should be given every opportunity to help themselves in their own homes and Thompson's little book is well worth its price to all such.

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**LIFE AND HEALTH.** By James Frederick Rogers, M.D., Assistant Instructor in Physical Diagnosis, Yale University; Author of "The Body at Its Best" and other essays. Philadelphia and London. J. E. Lippincott Company.

In the first part of his book, Dr. Rogers, who is assistant instructor in physical diagnosis at Yale, gives a general picture of the body in life and health, but in the second part he deals more explicitly with the problems of hygiene, or the maintenance of life and health. Rogers writes in an easy and readable style, and is free from fads and notions. His advice on hygiene is sound. For the layman who is interested in getting a clear understanding of hygienic living, this volume can be well recommended.

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**THE RELIGIO-MEDICAL MASQUERADE.** By Frederick W. Peabody, LL.D., of the Boston Bar. A complete exposure of Christian Science. The Hancock Press, Boston, Mass.

The author starts his introduction by saying "That Christian Science is the most shallow and sordid and wicked imposture of the ages. Upon a substratum of lies a foundation of false pretense has been laid upon which has been built a superstructure of outward beauty to which multitudes of credulous people gather to glorify the founder as God's chief anointed."

The author makes a point of calling things by their right names, and relates facts without the least equivocation, and yet withal is evidently a deeply religious man. He states that "the hand of truth should ruthlessly tear away the mask of falsehood from the face of hypocrisy." He adds that he speaks from a first hand knowledge, and evidently knows what he is talking about. In his introduction he challenges Mrs.

Eddy and the whole Christian Science combination to dare to prosecute him for libel, and affirms that their omission to do so is an acknowledgment of the truth of every statement he makes. He states that Mrs. Eddy is "mercenary, insincere, shameless and bold to a degree surpassing that of all other persons who have duped mankind," and says further that "upon theft and falsehood she has laid the foundations of the 'religion' by the sale of which she has accumulated a fortune."

Some of the chapters are devoted to the sacrifice of children; putting herself on an equality with Jesus; a bogus healing system; immeasurable greeds and so on.

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**THE HUMAN BODY AND HEALTH.** By Alvin Davison, M.S., A.M., Ph.D., Professor of Biology in Lafayette College. A text-book of Essential Anatomy, Applied Physiology and Practical Hygiene. Advanced. New York, Cincinnati, Chicago. American Book Co.

Davison has brought out a text-book of essential anatomy, and applied physiology and practical hygiene, which is well written and well illustrated, and filled with pertinent ideas and suggestions. It is a book which teachers will be able to use to good advantage, and from which students in the upper grammar grades will be able to derive a pretty clear conception of the fundamental facts concerning the human body and its functions, and the keeping of that body in a state of health.

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**HEALTH STUDIES.** By Ernest Bryant Hoag, A.M., M.D., Director of Hygiene and Physical Examination in Throop Polytechnic Institute and the City Schools of Pasadena; Lecturer in Hygiene, University of California. Applied Physiology and Hygiene, with Prefatory note by David Starr Jordan, Ph.D., M.D., President of Leland Stanford University. Boston, U. S. A., C. D. Heath & Co., Publishers, 1909.

Doctor Hoag's work at Pasadena in the public schools of that city is familiar to many physicians in Southern California. He is now director of hygiene in the Oakland schools. The book which he has written is an excellent

little treatise, dealing first with general pathology and then with hygiene, and contains also an appendix with references and suggestions for teachers and so on.

It is impossible, of course, to cover the whole subject of hygiene in so small a book, but for beginners it will answer very well.

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**THE CARE OF THE CHILD.** By Mrs. Burton Chance. The Penn Publishing Company, Philadelphia, 1909.

This is a good little book because it tells in plain language those little details which every mother should and must know. It contains excellent suggestions which are founded on good and sound hygienic facts. It is a safe book to place in the hands of women.

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**THE PRODUCTION AND HANDLING OF CLEAN MILK, INCLUDING PRACTICAL MILK INSPECTION.** By Kenelm Winslow, M.D., M.D.V., B.A.S. (Harv.), formerly Instructor in Bussey Agricultural Institute and Assistant Professor in the Veterinary School of Harvard University. Author of a text-book on Veterinary Materia Medica and Therapeutics, Chairman of the Committee on Milk of the Washington State Medical Association, etc. And Essentials of Milk Bacteriology. By H. W. Hill, M.D., Minnesota State Board of Health Laboratories, Chairman of the Committee on Laboratories of the American Public Health Association, formerly Director Boston Board of Health Bacteriological Laboratory, New York. William R. Jenkins Co., Publishers, 551 and 553 Sixth Avenue.

The pure milk question is one of live issues of today. Its immediate relationship to the public health is due to the fact that it is almost the sole nutriment of infants and many invalids. At the same time there is no foodstuff which can be so easily contaminated, and which probably is so often absolutely dangerous. The ordinary layman, or for that matter many medical graduates, have but a faint conception of the different factors involved in the production of clean and of a safe milk. Winslow deals with his subject from the standpoint of practical milk inspection and presents also, through Doctor Hill, the essentials of mild bacteriology. So that this book being an up to date vol-



ume on the subject should be warmly welcomed. That it has fulfilled a need is evident from the fact that the second edition has been called for within a year.

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A PRACTICAL TREATISE ON OPHTHALMOLOGY. By L. Webster Fox, M.D., LL.D. Professor of Ophthalmology in the Medico-Chirurgical Hospital, Philadelphia, Pa.; Member of the Army Reserve Medical Corps, etc., with six colored plates, and three hundred illustrations in text. New York and London. D. Appleton and Company, 1919.

There are many text-books which deal with the eye. Dr. Fox, however, need make no apology for the excellent volume which he has written, and which presents in excellent fashion the subject matter dealing with the diseases of a very delicate and important structure of the body. The general arrangement of the chapters is good; the illustrations are of more than usual worth; the style is clear, and the description of the operative procedures well put. Particular attention is paid to the bacteriology of the eye. The relation of general diseases to diseases of the eye is also carefully pointed out. Chapters on the new theories in reference to color perception and color blindness, as well as full particulars giving the latest therapeutic measures in eye diseases, add to the value of the volume.

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#### DR. KNOPF'S NEW BOOK.

In the new edition of his work on "Tuberculosis," Dr. S. Adolphus Knopf makes the following comments, which should be of special interest to Southern Californians:

"The first edition of this volume was more than kindly received by the medical profession and the general public. For the words of praise which were bestowed upon it in numerous reviews and personal letters I feel deeply grateful. The criticisms were few, but for them also I wish to express my sincerest thanks. Some referred to scientific points about which none of us as yet are certain, others referred to more

or less serious typographical errors which now have been corrected, and a few new phases in the popular campaign have been described.

"To one assertion, however, which appeared in two or three of the criticisms I must reply in detail, and leave the public to judge the right of the case. It has been said that a number of my statements regarding the prevention and cure of tuberculosis, in its social as well as in its medical aspect, were non-authoritative, and not based on experience. My reply to this serious criticism is merely to enumerate the opportunities which I have had in the space of twenty-five years, for the study and observation of this disease.

"I began my medical career as a student at the medical college of the University of Southern California, in the early eighties. My first important position was that of interne in the Los Angeles County Hospital, where the majority of patients consisted of consumptives, nearly all of them in the more advanced stages. They had come thither thinking that the glorious climate alone would suffice to cure them. Some had come with little or no money, others had spent their all and had not enough left to return to their Eastern homes, which, perhaps, all of them had left in the hope that a few weeks in Southern California would restore them to health and vigor, when they would find work and be able to support themselves. This delusion filled the Los Angeles County Hospital, year in and year out, with hundreds of poor, discouraged consumptives, many of them hopelessly ill. They became a burden to a strange community. It was this situation which inspired me to devote my life to the anti-tuberculosis cause, to seek out and to study the means of curing tuberculosis as far as it was practicable without regard to climate, and to labor for the early recognition of the disease. . . ."

## CORRESPONDENCE

The following letter to the Secretary of the Arizona Medical Association, from Dr. R. W. Graham, formerly of Prescott, should be of general interest:

41 Lothbury, London, Eng.,

June 11, 1910.

DEAR DOCTOR:—There were a few things they told us here that I think may interest you. At the Nose and Throat Hospital, they said the best treatment for follicular tonsilitis was to use a solution of Izol 1-50 and add glycerine enough so it would stick to the throat and paint the throat with this; also to paint the throat with Izol after removing the tonsils. It is something like Lysol and makes a muddy looking solution. They said where a person had had several attacks of quinsy one must do a tonsillectomy as tonsillotomy was not sufficient, as you would get a return of the quinsy.

They told us you could abort hay-fever for three weeks by cauterizing the sensitive point on the septum of the nose, and the same treatment would stop an attack. Apply cocaine before cauterizing and use the actual cautery. They get the best results by using a two per cent. solution of atropine sulphate with glycerine enough to make a fine spray and using a very fine spray so that the patient will not get enough to cause atropine poisoning. This must be watched, and have the patient use the spray whenever necessary.

They told us adrenalin would bring on an attack of hay-fever.

In Vienna they gave tuberculin injections in all stages of tuberculosis and seemed to get good results. Of course it made no difference there when they got bad results. They advise giving it in some tubercular conditions of the eye.

You know that test by putting tuber-

culin in the eye. In Vienna they said it was criminal to do such a thing and condemned it severely.

They had a theory in Vienna that cancer of the stomach followed ulcer of the stomach and that a large percentage of all people with cancer, had had an ulcer of the stomach at some stage in their life.

A professor Strerk said he had seen forty thousand post mortems and that fully fifty per cent had shown evidence of having had ulcer of the stomach at some time or other.

I saw Dr. Palmer. He was at Vienna when I left.

They have shown us some remarkable treatments by electricity here in London.

I had a chance to shake hands with Teddy Roosevelt when he was at Vienna.

Paris is a great place, YOU would enjoy it very much, I spent thirteen days there and heard Caruso sing.

Saw the great Derby here. I never saw such a large and well conducted crowd. Just a moving mass of humanity as far as one could see. It is held sixteen miles from the center of London and we started home on a bus about five o'clock, and reached London about nine o'clock. I expect to go to the horse show tomorrow. I would like to live in London. I saw an air-ship here which was controlled by wireless electricity and so arranged that at will a trap-door could be opened and explosives let fall at any time. It is only a model but appeared to work all right.

With all good wishes and hoping to hear from you, I am

Very sincerely,

R. W. GRAHAM.

## OF GENERAL INTEREST

## LATEST USE FOR THE NEWSPAPER.

It has remained for far-away Los Angeles, California, to introduce the newspaper cure, says the *New York World*.

At the head of the medical staff of the California Hospital is Dr. Walter Lindley, editor of *THE SOUTHERN CALIFORNIA PRACTITIONER*. To lead the mind of the patient away from himself and his troubles is an important duty of the nurse of today.

After years of experience Dr. Lindley, of the California Hospital, has evolved a plan of giving the one hundred nurses of that institution the current history of the world day by day so that the nurses may in turn impart it to their patients. The method that has been adopted at the California Hospital is to prepare a condensed daily paper made up from the Los Angeles dailies.

This hospital paper is read to the nurses while at luncheon. It occupies rarely over ten minutes of their time and they continue eating just as the guests do at a cafe while the orchestra plays.

The reading of this daily paper at the California Hospital began over one year ago and nurses, doctors and patients are all very enthusiastic in its favor. The therapeutic value of this innovation has been commented on favorably in medical journals and by physicians generally.

## RENAL CALCULI.

In *Merck's Archives* for April, John B. Talmage believes that prophylaxis in those of a gouty diathesis, and against future attacks, is the ideal management of cases of renal calculi; and consists of the same treatment as that employed for the chronic and intermediate stages of the disease. For the acute attack

## Svapnia

**Purified Opium  
With a Fixed  
Morphine Standard**

**SVAPNIA** possesses the following advantages over ordinary opium:

Freedom from mechanical impurities; elimination of undesirable alkaloids; definite morphine content (10 per cent); lessened tendency to nausea and vomiting; increased palatability; uniform results.

The adult dose of Svapnia (1 to 2 gr.), as well as the indications for its use, are the same as opium. It is in the form of red-brown scales, soluble in water with turbidity, and is best administered in capsules, pills or powder form.

Sold by druggists generally.

**THE CHARLES N. CRITTENTON CO.**

Sole Distributing Agents,  
115 Fulton Street, New York.

*Sample and literature on application.*

hypodermic injections of morphine guarded by small doses of atropin frequently repeated, until the pain is under control, are best. Follow this by a general stimulating treatment with whisky and strychnine if shock and collapse are present. Prolonged hot baths help to reduce, and sometimes stop the spasm, but are only resorted to if the patient's general condition warrants such a procedure. If the stomach and intestines are sympathetically upset they must be treated symptomatically. Hexamethylenamin and large quantities of water should follow the attack, to prevent the formation of pus and to flush out the kidneys. As regards the procedure for the chronic stage and for the time between acute attacks, the casual indication is met by keeping the substances which lead to the formation of stone



## There is No Excuse for Suture Trouble if you use

### *"VanHorn" Catgut*

There may be *reasons*, but if surgeons all over this country can report series of fifty, one hundred or even two thousand consecutive cases in which *"VanHorn"* Sutures and Ligatures have been used exclusively without the slightest infection or other trouble, why should you or any one else have any difficulty?

There are probably abundant reasons if you do, but *no good excuse*, in which event

*is it not the SURGEON—rather than the Suture—that is to blame?*

**VAN HORN & SAWTELL**

*Sterilized Surgical Supplies*

31-33 High Holborn,  
LONDON, ENGLAND

307 Madison Avenue,  
NEW YORK CITY

within the body at as low a percentage as possible, and stopping their accumulation in the kidneys. In conjunction with dietary, open air and exercise must be had daily. Warm baths, particularly the mineral variety, increase diuresis, diminish urinary acidity, and favorably influence general metabolism. To increase the dissolving power of the urine for uric acid, alkalies in the form of carbonates or salts of the vegetable acids (citrates and acetates), alkaline earths, and lithium salts are employed. These are to be taken with plenty of water, as the active flushing of the kidneys is as important as rendering the urine alkaline and dissolving concretions. Of medicines there are two which are as good solvents (so called) as can be given; piperazin in doses of 15 to 20 grains well dissolved in seltzer water and drunk throughout the day, and hex-

amethylenamin 15 to 20 grains taken in one daily dose in plenty of water. For oxalic acid calculi the same dietetic and medicinal treatment applies as for oxaluria; while phosphatic stones are generally secondary and the original alkaline urine or pyelitis must be treated in the first place. Attention to details in the daily life, diet and excretion can cure the disease, but with the tendency to recurrence the prognosis is always doubtful unless the patient aids willingly in all efforts.

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"Mixed Infections in Pulmonary Tuberculosis; Their Vaccine Therapy," and "The Role of the Blood in the Vaccine Treatment of Consumption" are the titles of two reprints by Dr. George Martyn of Los Angeles. The former article is closed by the statement: "I use vaccine therapy almost wholly, growing the various organisms from blood and sputum in our own laboratory, and making homologous vaccines for each and every case. As a guide to dosage I mainly use the Index, but in some cases clinical symptoms are sufficient after initial finding. It may be of interest to you to know that work on precisely the same lines is being carried on at King Edward VII's Sanatorium, England."

Dr. Martyn closes the latter article as follows: "Let us set before ourselves an ideal, true to nature, but too high for immediate and habitual attainment, so that both our individual and our collective work may be more worthy of our calling and that our art may be more hopeful and more helpful to suffering humanity.

"Then life is—to wake not sleep,

Rise and not rest, but press  
From earth's level where blindly creep

Things perfected, more or less,  
To the heaven's height, far and steep."  
Amen!

# *Antiphlogistine*

Trade Mark

## Summer Time Suggestions

Don't put your Antiphlogistine can away in the summer. Besides now and then a case of pneumonia, there will be many other uses for it:

First—Bruises, sprains, baseball fingers, etc.

Second—Stings and bites of insects and reptiles.

Third—Sunburn.

Fourth—Poison Ivy, etc. (Dermatitis Venenata).

Fifth—Inflamed wounds from fireworks or firearms.

Sixth—Applied to the abdomen for the relief of colic in children and adults.

N. B. Be sure and take a can with you on your vacation, you may find it very useful when far from a drug store.

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**The Denver Chemical Mfg. Co.**  
**NEW YORK**

## MODEST REQUEST.

An Irishman in the hospital had been successfully operated upon for appendicitis, and was resting quietly, but the next day one of the surgeons came to him and said:

"Pat, in our hurry to sew up the incision, yesterday, we accidentally sewed up a small pair of forceps inside of you, and we will have to take out the stitches and remove them, or you will never get well."

"All right, Doctor, take 'em out," said Pat.

The next day the surgeon came back, and said: "Pat, I'm awfully sorry, but when we sewed up that incision yesterday, we unfortunately left some of the absorbent cotton in the wound, and we will have to take out the stitches and take it out, or it won't heal properly."

"All right, Doctor," said Pat, still cheerfully.

The next day the doctor came to see his patient, and as he uncovered the wound and was examining the stitches, Pat raised up his head and said: "Doc-

tor, dear, in place of sewin' me up again today, would ye moind puttin' on hooks and eyes?"—*Exchange*.

AT THE HOSPITAL.—A young physician, proud of his three-days'-old diplomas, was gleefully telling a physician of many years' experience of his luck in being appointed to the staff of one of the big Brooklyn hospitals.

"Just to think of it!" said the young man. "Here I am only a few days out of college, too. I expect to learn a whole lot in that hospital."

"Yes," said the old campaigner. "I know of no better place to confirm your diagnosis by an autopsy."

## ARTERIOSCLEROSIS.

Kalmus shows that iodipin possesses undoubted value in the treatment. He injected hypodermically under the skin of the abdomen 10 Cc. of 25 per cent iodipin every alternate day. Ten to twenty injections suffice. Or tablets may be given by the mouth.

## ALUMNAE ASSOCIATION TRAINING SCHOOL FOR NURSES.—CALIFORNIA HOSPITAL NOTES.

The monthly meeting of the California Hospital Alumni was held at the Directory rooms May 23rd. Final plans were made for the annual reunion.

Dr. and Mrs. Walter Lindley entertained the graduating class at their home with a dinner. All returned home well satisfied and happy.

Miss Alice Dougherty, who is taking post-graduate course at Flower Hospital, N. Y., has just recovered from an attack of appendicitis.

Miss Leckert, superintendent of hospital at Jerome, Arizona, has been spending her vacation in this city for the past two months.

Miss Hammond has returned to Los Angeles after a stay of two months in the East.

Mrs. Owens (née Hughes, Class '07), gave birth to an 8½-lb. boy. Mother and babe are both reported as doing nicely.

Miss Roberts is suffering with an attack of measles. Last report as recovering rapidly.

The Annual Reunion of the California Hospital Alumni was held at the Hotel Decatur, Ocean Park. An elaborate banquet was given in honor of the graduating class. They all said they had a jolly good time.



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Editor,  
DR. WALTER LINDLEY.

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## ARTERIOSCLEROSIS WITH REPORT OF OBSERVATIONS ON BLOOD PRESSURE.

BY BOARDMAN REED, M.D., ALHAMBRA, CALIFORNIA.

A study of the literature which has appeared on arteriosclerosis during the last two decades, forcibly impresses one with the increasing appreciation of its great importance. Directly or indirectly it probably causes a majority of all deaths in adults. Recent investigations indicate that not only are both the arteries and arterioles more or less generally involved sooner or later, in the inflammatory and degenerative processes commonly grouped under this name, but also in many cases the veins, venules and capillaries, so that the term angiosclerosis more nearly expresses the actual pathologic condition. The disease is easily diagnosed by even a tyro in medicine when far advanced and hopeless. To recognize it in its incipency when a cure is often practicable, is very difficult and the diagnosis then is doubtless rarely made.

The symptoms of fully established arteriosclerosis are familiar to most physicians, and those of the advanced stages, such as the arcus senilis, thick-

ened, hardened and tortuous surface arteries, apoplectic or apoplectiform attacks, paralyses as well as dropsies and uremic convulsions when the kidneys have become seriously involved, are known even to many of the laity. The earlier and especially the premonitory symptoms are by no means so well known. They are frequently overlooked or neglected in spite of the fact that their prompt recognition and persistent energetic treatment mean the saving of lives that must otherwise be wrecked—allowed to drift helplessly on to the rocks of apoplexy, Bright's disease, heart failure, etc., with a resulting early death or what is worse, a useless prolongation of life after all capacity for serviceable or pleasurable activity has been lost.

Among the earliest symptoms which signify that the arterial walls are being irritated and their integrity endangered by some toxic agent, whether it be a poison from the outside as in the case of syphilis, lead and tobacco, or

one from within (endogenous) as in gout, lithemia or a chronic autotoxemia of any kind, must be mentioned especially as the most important of all, increased tension in the arteries with augmented blood pressure as revealed by the sphygmomanometer and much less certainly by the finger on the pulse. By this valuable instrument of precision, which every family physician should now possess and use as regularly on occasion as his clinical thermometer or specula, increased blood pressure can be certainly detected in a few minutes in any patient, while all the other early symptoms except the findings in an examination of the eyeground, are likely at times to elude or mislead us. Yet, while apart from the changes in the eyeground, no other single symptom of threatened, or actually existing arterial disease is so generally present up to the time when the heart has yielded to the overstrain and become unequal to its task, it has been apparently established that exceptionally cases of arteriosclerosis do occur and run their course to the inevitable fatal termination with the blood pressure always 'subnormal. Therefore, the common mistake of failing to recognize the disease because the blood pressure remains low, should never be made. As will be shown later on, it is likely that the pressure in many of these cases might be found to be abnormally high early in the morning immediately after arising from bed, especially after eating imprudently the previous day. My observations of numerous early cases have often shown a pressure ten to thirty points higher just after arising than in the afternoon, or even in the late forenoon. The normal systolic pressure in men is 120 to 140 according to age, and in women, 110 to 130 mm. of mercury.

Dr. A. L. Macleish<sup>1</sup> of Los Angeles has emphasized the importance of

an ophthalmologic examination of the eyeground in every case of suspected arteriosclerosis, reminding us that the disease can usually be thus detected long before signs of it are apparent elsewhere.

Another significant symptom which can often be seen early is a pallor of the skin not due to a true anemia, the blood count being at or near the normal figures. This being a result of a spasmodic contraction of the vessels would generally be confirmed by finding at the same time an abnormally high blood pressure and swollen vessels in the retina.

Other symptoms often to be noted at a later stage are vertigo, tinnitus aurium, intermittent claudication, impaired memory and sleep and mental depression; also failing nutrition with loss of weight, an unusual proneness to infections and to attacks of gastric and intestinal indigestion, but it is questionable whether these last are not rather the results of nutritional and metabolic faults which are themselves the real causes of the arterial disease. This leads us to the consideration of a special form of the disease which has only within the last few years been receiving much attention, viz: ARTERIOSCLEROSIS OF THE ABDOMINAL VESSELS.—Stengel<sup>1</sup> of Philadelphia in 1904 referred to cases of an intestinal form of arteriosclerosis studied by him in hospital and considered that the intractable cases of chronic colitis so often encountered are probably thus explained.

The early symptoms of this form seem not to be distinguishable from the familiar ones of indigestion and chronic catarrh, but Buch<sup>2</sup> mentions repeated attacks of severe pain resembling gastralgia felt near the navel as characteristic of it. They may recur sev-

1. The Clinical Course and Diagnosis of Arteriosclerosis. Wis. Med. Jour. Vol. 3, No. 8, 1904.

2. St. Petersburg Med. Woch., No. 27, 1904.

1. Southern Cal. Practitioner, January, 1907.

eral times a day and last usually a few minutes only, seldom half an hour or more. They may be provoked by any muscular effort as walking upstairs, by a purgation, or by mental strain—sometimes merely by lying down—and though usually they appear to have no relation to food or eating, they seem sometimes to be superinduced by an extra heavy meal. Buch maintains very positively that the diagnosis may be made by a therapeutic test; the administration of three or four grains daily of diuretin or five to eight drops of the tincture of strophanthus three times a day, he says, will stop the attacks within two or three days or at least greatly diminish them and sometimes the first day, if they are due to arteriosclerosis, but be otherwise without effect.

The same observer found the aortic second sound accentuated in every one of his cases and also the abdominal aorta sensitive on pressure. The latter symptom, however, I have observed in a great variety of digestive troubles, even in young dyspeptics in whom there was no suspicion of fault in the arteries. Buch describes two distinct forms of pain which he ascribes to abdominal arteriosclerosis,<sup>1</sup> one in which there is no involvement of the thoracic organs in the painful attacks, although when the heart is also at fault, there may be anginal pain in that region at other times; and<sup>2</sup> a form in which the pain may begin in the epigastrium and then extend to the heart, producing there a true stenocardial attack, or *vice versa*, the pain beginning in the cardiac region and extending to the abdomen. More recently Mueller<sup>1</sup> of Buda-Pest has reported results of an elaborate study of abdominal arteriosclerosis, in which he confirms most of Buch's previous findings. He quotes Hasenfeld as having proved

by histologic researches that arteriosclerosis of the abdominal viscera is not only much more frequent than generally supposed but is also the chief cause of cardiac hypertrophy, and cites Kuemmel as holding, as a result of extensive investigation, that sclerosis of the abdominal vessels is very common. He also reports communications from various other writers concerning ulceration and thrombosis in the gastrointestinal tract leading to fatal hemorrhage in some of the cases. Mueller explains the sclerotic pains of the abdomen as a neuralgia of the lumbar sympathetic and believes that very many of the ailments usually classed as neuroses of the stomach and intestines are really results of arteriosclerosis of the gastrointestinal tract.

ETIOLOGY.—Daland of Philadelphia holds that in this country the order of frequency of the causes of arteriosclerosis is as follows: (1) excessive muscular work; (2) alcoholism; (3) syphilis; (4) excess in food, especially of the nitrogenous variety; (5) gout; (6) intestinal toxemia; (7) uremia; (8) excessive mental work, especially in those possessing a neurotic temperament; (9) various infections such as rheumatism, chronic septicemia, typhoid fever, etc.; (10) plumbism; (11) nicotinism; (12) long continued excess in fluids; (13) congenitally weak vascular apparatus, (a) syphilis, (b) offspring of senile parent or parents, (c) unknown causes.

This is the most complete list of such causes that I have seen, yet my own observations indicate that there are probably still a few others, which shall be mentioned later. They also suggest some question as to the order of frequency. While the records of the hospitals and clinics from which most of our published statistics are drawn, would doubtless warrant the placing of muscular strain, alcohol and syphilis very high up in the list of causes, since such

1. Allg. Wiener Med. Zeitung, Nos. 37 to 40, 1909.

2. Monthly Cyclopedia of Prac. Med., Vol. X, page 145, 1907.



statistics deal with a class of patients in whom these are prevalent far above the average, there can be little doubt that among private patients even in cities, and especially among the people generally who live outside of the large cities, the three etiologic factors named belong lower down on the list in the order of frequency; also that among the well-to-do classes, at least, the various forms of autotoxemia resulting from high living—overeating or overburdening the digestive and eliminating organs with both food and drink, particularly alimentation out of properties to oxygenation—demands first place.

The role of alcohol in this connection calls for special mention. Probably a majority of both American and foreign authors agree with Daland in considering it one of the most frequent causes of arteriosclerosis, but Cabot of Boston has reported that a study of the inmates of a large hospital for inebriates showed only 6 per cent. affected with arteriosclerosis—less than the average among adults generally. Clifford Allbutt has suggested that probably alcoholic beverages have been an etiologic factor chiefly by conducing to overeating, which all now concede to be one of the principal causes of arterial disease. At all events, the beers and wines that are so largely drunk abroad, tend more to produce fermentation and flatulency, which, according to my experience, increase blood pressure, while the spirits predominantly consumed in this country, especially by most heavy drinkers and hospital inmates, actually lower the blood pressure, pernicious as is their effect otherwise on the liver, nerve tissues, etc.

A recent exhaustive paper by Pottinger of Los Angeles concerning the effects of tuberculosis on the circulation proves that this, the most widespread of all the infections, like various other ones, can set up gradually the lesions of arteriosclerosis. The cases studied

particularly numbered 162. Of 28 patients who had been ill less than a year, one half had thickened radial arteries; in 41 ill between one and two years 20 had the same; while in 93 ill over two years, 60, or nearly two-thirds, had palpably thickened radials. The blood pressure was constantly subnormal in all, thus revealing one condition capable of causing those cases of arteriosclerosis in which the blood pressure remains always low.

Puerperal fever is another of the acute infections which have been shown to be capable of causing arteriosclerosis.

Viewing the disease for our purposes here in its practical relations chiefly, with regard to its prevention and its possible cure in the earlier stages, as well as retarding its fatal course in later stages, the pathology of arteriosclerosis need be only broadly and briefly discussed. The vessels become very gradually altered so that their walls are thicker and stiffer, their lumen lessened and their lining membrane roughened while the blood generally has an increased viscosity. Local dilatations follow in the arteries, as well as in the heart itself; aneurisms may result even in the smallest vessels, with later rupture and hemorrhage often lethal, especially when in the brain. In a large proportion of cases the renal vessels are eventually—sometimes early—involved with the development of Bright's disease. The vessels which supply the digestive organs including the pancreas (less frequently the liver), the stomach and intestines are known to be often primarily affected—perhaps in all the very large proportion of cases in which dietetic faults have been the cause—and in any case, become ultimately and increasingly involved, so that the digestive secretions diminish and the glands and muscles both atrophy until finally, even when ruptures of vessels or other more serious accidents have been escaped, death results from marasmus or toxemia

through failure of the kidneys, liver, etc., to clear the system.

The exact nature of the earlier changes in the vessels—the minuter histology of the morbid processes—is of far less importance, to express Allbutt's opinion in different phrase, than the causes, the results and the means by which they can be prevented, stopped or at least retarded.

**DIAGNOSIS.**—Continued high blood pressure in a person under forty, or in any except the very old, would alone warrant the diagnosis of either existing or threatened presenile arteriosclerosis. When found together with superficial vessels visibly or palpably thickened the condition cannot well be referred to anything else except physiologic or senile arteriosclerosis. In the form of the disease which runs its course without ever showing an excessive blood pressure, and in the later stages of the more usual form after cardiac insufficiency and low blood pressure have resulted, the diagnosis must rest mainly upon the thickened condition of the superficial vessels discoverable by the unaided eye and touch, and especially on an ophthalmologic examination of the eyeground. The mental, nervous and renal symptoms usually also present, make up a picture which is unmistakable for even cases in only a moderately advanced stage. In the earlier stages the condition of the blood pressure and the ophthalmologic findings often afford the only reliable means of deciding, and when the increased blood pressure is wanting, the latter findings may be the only dependence. As Macleish forcibly put it—"a man is as old as his arteries"; how old his arteries are, the ophthalmologist is in a position to discover before brain or heart or even kidney tells the tale."<sup>1</sup> When there are suspicions of a combination of tuberculosis with disease in the arteries, the tuberculin test and eyeground find-

ings must join in helping to an early diagnosis, since then the blood pressure is usually subnormal.

It is important to distinguish secondary from primary low blood pressure. The former has always been preceded by a period of high pressure when there should have been comparative vigor even though accompanied by the symptoms of hypertension, a history which careful inquiry should be able to elicit.

**CLINICAL OBSERVATIONS ON BLOOD PRESSURE.**—A summary of observations carried out in part with the assistance of Dr. F. E. Corey at his Sanatorium in Alhambra, Cal., will appropriately appear here. Besides routine examinations in a large number of other cases, there were made on four persons who volunteered for the purpose, several hundred observations of the systolic blood pressure by means of the Riva Rocci sphygmomanometer, before and after exercises of various kinds and degrees of activity, before and after meals and different forms of hydiatic procedures, electric treatment, etc.; also at various hours of the day and night, especially on retiring and on arising after a night's sleep. One of the four was a professional man 68 years old who had had somewhat atonic gastro-intestinal viscera and moderate arteriosclerosis for over ten years, with always for years a high pressure in the morning. Another of them was a lady aged 65, who, though possessed of a first-class digestion, showed signs of beginning arteriosclerosis with high pressure especially in the early mornings. The third, a merchant, aged 29, had a low arterial tension and various nervous symptoms, due probably in part, at least, to tobacco. The fourth was a lady of 23 in whom a tuberculous infiltration of one lung had been arrested by the tuberculin treatment. Her blood pressure and pulse rate were variable.

1. Loc. Cit.

The results of these observations may be briefly summarized as follows:

1. Exercise of all kinds from the gentlest to the most active and vigorous, is followed, after a brief rise of blood pressure and increase in the pulse rate (which can be made very slight and transient) by a decided fall of from 5 to 50 mm. of mercury, according to the severity and duration of the exercise and the condition of the patient. Generally the pulse rate increases as the pressure falls, but the gentler exercises, especially those against resistance (*Widerstandsgymnastik*) carried out in accordance with the rules of the Schott brothers of Nauheim, will leave the pulse rate unchanged, or when rapid before, slowed and strengthened. As a rule the higher the pressure before, the greater is the fall after, the mild exercise. It is possible that cases complicated by serious renal disease may prove exceptions in this respect, but I have not had an opportunity of testing such cases thoroughly. The elaborate Schott rules are not necessary to obtain very favorable results except in the weakest patients. Ten to twenty minutes spent in making a variety of muscular movements, not more than two to ten or twenty of each kind, the number depending upon the degree of the cardiac tone (the weaker the heart the fewer and the more slowly to be made) will nearly always produce decided results. An attendant is not indispensable after the patient has been taught to resist, himself, by contracting moderately the muscle opposed to the one in action. Pulleys also can be adapted so as to give the proper amount of resistance, but the patient needs to be cautious always not to over-exert in any of these ways. The gentlest exercises do the most good in feeble patients.

2. Mental exertion has produced varying results, but never in my experience a lowering effect on the blood

pressure unless after exhaustion. When very severe or exciting it tends to raise the pressure (as do all the passions) but otherwise is likely to leave it unchanged.

3. During the period of digestion, from one to three hours after a simple ordinary meal not including tea, coffee or alcoholics, I have found the blood pressure usually lowered, often decidedly, though it has sometimes been transiently raised before falling, as happens with exercise. Whenever, however, a flatulent distension of the intestines has resulted, as especially during the night in dyspeptics, the pressure has been raised. The pulse rate has been always higher after meals.

4. The cumulative effect of any special diet is a different matter. An exclusive milk or meat diet has lowered the pressure in arteriosclerosis when previously high—in one of my patients very decidedly—but the ultimate effect of the meat diet has been aggravation of the disease in the vessels as shown by the nervous and other serious symptoms. Thus the almost universal advice of writers that these patients should eat meat very sparingly, if at all, is justified by my observations.

5. In the great majority of my observations, as before mentioned, the blood pressure has been found very much higher shortly after arising than later in the day, especially in patients not confined to bed. This rise has been particularly marked in patients troubled with flatulence, but by no means confined to them. Various causes probably contributed to this. The reflex stimulation of the heart by the distension is possibly one cause, the absence of the pressure-lowering influence of digestion and of the other activities of the day and evening, is probably another, and the tonic effect of the prolonged rest and sleep upon the heart must also be a factor.

No other observer seems to have noted this usually marked difference be-



tween the evening and morning blood pressures and it is always to be borne in mind in managing important cases of arteriosclerosis.

The particular directions for the treatment of arteriosclerosis were very fully given in a paper presented by me to the American Climatological Asso-

ciation at its meeting at Old Point Comfort in 1909, and it would unduly lengthen this article to reproduce them or repeat them here in any other form. They will be found in the transactions of that society for 1909 and also in the *California State Journal of Medicine* for September of the same year.

## SIMILIA SIMILIBUS CURANTUR.\*

BY W. WARNER WATKINS, M.D., PHOENIX, ARIZONA.

If this paper trespasses upon the modern teachings of homeopathy, such will be incidental and not intentional. Yet, such an event would not be unfortunate, since the more quickly all practitioners of medicine find a common ground upon which they may meet, the better they will be. Everything herein is justified by teachings of such authorities as Ehrlich, Metchnikoff, Wright, Sajous, Adami. However, the maxim chosen as our subject originated with Hahnemann over a hundred years ago, and, although he never approached a realization of its vast significance, occasion must be taken, in due course, to give him credit for its origin.

The fact that Nature cures diseases more frequently than do physicians, has been accepted for centuries complacently and with little regard for its significance. But, in the last decade, aggressive and insistent minds have been wrestling from her reluctant grasp Nature's technique of defense, and it only remains, now, for this knowledge to be woven into our system of therapeutics, to give us accurate and definite methods of combatting disease. Adami has stated these principles of defense more clearly than any other writer of my acquaintance, and to his writings this paper is deeply indebted.

All living matter owes function, form and very existence, to its property of

adaptation to environment. Races of men with their anatomical and physiological variations, diverse species of animal life, varied forms of plant life, have developed and continue now to exist, solely through this property. The study of adaptation has brought into clear light certain facts which are necessary for an accurate conception of health, disease, and therapeutics.

*First.*—The constituents of the molecules of living cells (called biophores by Adami) have an inherent tendency to vary. However, a more significant fact is, that a change in environment or external influence is necessary to bring about a variation in the molecular arrangement within cells; and, with each change in environment, a particular variation occurs in the cell. Consequently when the environment is under control, a desired variation can be produced.

*Second.*—When a given environment persists, the variation becomes stable and permanent. The cell is adapted to the new condition, and the environment, which may have been destructive in the beginning, has no more influence. "Adaptation" is, in no case, immediate, but requires some little time for its development, and this even in the simplest forms of life. . . . Once living matter of the cell becomes modified the modification is apt to persist and to be

\*The Annual Essay of the Arizona Medical Association, Phoenix, Ariz., April 20, 1910.

carried on to later generations." These laws apply just as definitely to a group of organized and specialized cells—that is, to an organism, as they do to isolated cells.

*Third.*—Following changes in external influences, there is more than a precise adjustment of internal conditions. A cell stimulated continues to react after the stimulus has ceased; cells follow the law of the momentum of inertia, and tend to continue in the same condition—whether of rest or activity—after the influence which has brought about that condition has been removed. Owing to this property, a cell subjected to an alien influence, after adjusting and adapting itself, continues the process until the reaction is out of proportion to the stimulus, the tendency of the cell being to prepare itself for more powerful influences of the same character.

*Fourth.*—"Adaptation is always and essentially an active process, an inevitable process, and is, in no sense, the result of chance. It is not a passive adjustment in a favorable direction, but the process of living matter changing and moulding itself to its surroundings, so that changes in those surroundings lead to definite and corresponding alterations in the living matter."

Then, man is an adapted and adaptable animal. If this had not been so, there would be no human race; (1) because men could never have scattered over the earth had they not been adaptable to diverse climates and thermometric changes; (2) plagues would have destroyed them, for the property of adaptation, in its natural working and in its artificial application, alone, has stood between them and annihilation by bacterial diseases. An Eskimo cannot live in the torrid zone, nor a Hottentot in the frigid; yet they sprang from common ancestors with us, who stand midway between them in our adaptation to climate and heat. During

centuries, the organs, tissues and cells, by molecular changes have, in the negro, become more and more adapted to the equatorial climate and those of the Arctic dweller to the frigid north, until we have wide variations in the effect of external conditions upon the human organism. So, also, it is that there are as many variations in the physical and mental qualities of men as there are diversities in the external environment, whether this be climatic, thermometric, altitudinal, racial, social, educational or moral. Through adaptation, the human race has been able to multiply in spite of virulent, epidemic and pandemic diseases. This property has prevented the opium vice from wiping the Chinese nation off the map; has permitted South African tribes to increase in the presence of scourges which kill one Caucasian out of every three exposed; goes far to explain why tuberculosis cannot decimate the American whites, and why cholera makes no headway against the teeming millions of India. A race of people scourged by any disease will gradually develop an accustomance to that disease, and, thereafter, it will not affect them nearly so profoundly as it does a people to whom it is novel. Also, the grafting of a disease on virgin soil means a widespread and exceedingly fatal infection. An epidemic never "wears itself out." It is worn out, beaten back, eradicated, by Nature's property in living organisms of adaptation to environment, so that influences destructive in the outset, ultimately become neutral or even beneficial. The disappearance of a plague means the survival of a vast aggregation of individuals presenting an adaptation to the presence of the micro-organism and toxin of the plague. "Health is a condition in which the organism, or the part, is in complete adaptation to its surroundings," and is a very variable condition as regards the molecular arrangement in the cells.

"Disease is a condition in which equilibrium and adequate adaptation are wanting."

The law of adaptation, that "with a particular environment a particular alteration in properties results," holds true from the lowest form of plant life to the highest form of animal. By utilizing this law the specific and characteristic properties of bacteria may be changed; e. g., the typhoid bacillus, which normally does not produce indol, can be made to produce it. Non-pathogenic bacteria can be made virulent; the *B. megatherium* and the *B. mesentericus*, forms which can be injected by the million into animals without harm, can be made pathogenic by a process of adaptation. The bovine tubercle bacillus can be—and often is—made pathogenic and virulent to the human cells and tissues by adaptation. The cellular elements of the body are governed by the same law. Acquired immunity is due to this, being simply adaptation to an external influence, the environment, in this case, being infection. The crux of the argument is that "animals adapt themselves to and combat diseases according to very definite laws," the reaction varying as the pathogenic microbe varies in its properties, virulence and activity.

Knowing this law, when we have learned *how* it can be called into operation, our therapeutics will be able to combat, directly, the causes of diseases, instead of, as now, concerning itself almost exclusively with symptoms, or depending on empirical treatment. The phenomena of a small cutaneous infection are typical of all bacterial invasion. Following the entrance of bacteria into the tissues, the cells in that vicinity are bathed in a solution of toxin; the molecules of the cell, unless destroyed, rearrange themselves so as to be indifferent to the toxin; that is, adapted to the new environment. The phagocytic cells, being least specialized,

and, therefore, more subject to change, react more profoundly, and not only adapt their structure to the poison, but undergo a powerful intensification of their inherent function—massing themselves about the area of infection (chemotaxis), grappling with the bacteria (phagocytosis), until these invaders are all destroyed—when the infection will subside. In any specific infection, the process is the same, following a definite law. These principles and phenomena we have thoroughly learned by studying immunity. This study is so profoundly influencing our therapeutics of today that it has recently called forth a "Principles of Medicine" from the pen of a high authority, based on the theory that in the "autoprotective resources of the body and the laws through which drugs influence them" lies our scientific therapeutics; that these resources are developed through adaptation; that active immunity is adaptation; that, consequently, active immunity is the basis of the therapy of the future.

What will be the place of drugs in a therapy based on such principles as these? A very much more exalted one than that which they now occupy. Empiricism will give way to exactness and, except for drugs given for the sole purpose of temporarily combatting harmful symptoms, they will be given with the definite intention to augment the tendency of cells to first adapt themselves to a toxin environment and then to attack the bacteria.

At this point, due credit must be given the man from whom the title of this paper is borrowed. There were many things in Hahnemann's practice which look crude to us at this distance; there were, also, many things in the practices of Galen and Hippocrates which are ridiculous; but the mistakes and accomplishments, alike, of great men, must be judged in the light of their own generations. Hahnemann



lacked our knowledge of bacteriology, biology and pathology; he knew nothing of the molecular changes in cells resulting in adaptation. He knew that internal derangements produce external symptoms. He had a profound knowledge of the pharmacology of drugs, as well as their physiological action, so far as external symptoms went. He perceived that there were substances which, in their action upon the human tissues, produced similar or identical symptoms; some were unknown and unascertainable—the exciting causes of diseases; other substances (drugs) were known to him. His conception was that the administration of a drug in small doses would surround the tissues of the body with a particular environment and the changes wrought in becoming adapted to this environment, would cause such tissues to resist, more easily and effectively, the destructive action of any substance producing similar symptoms. For instance, Hahnemann had before his eyes the most prominent symptom of scarlet fever and the well-known erythema of belladonna. Ignorant of everything connected with scarlet fever except its objective symptoms, he conceived that a tissue adapted to the presence of belladonna would be more resistant to the destructive action of anything tending to affect it in the same manner, although more powerfully; that is to scarlet fever poison.

We, now, have climbed to the heights of supposition that the streptococcus is the cause of scarlet fever, so we administer antistreptococcic serum or vaccine, in order to adapt the tissues to the environment to which we conceive the disease will subject them. Hahnemann had to pair off effects in order to find identities; we find them in the culture tube. It is easy for one desiring justice to a great genius to believe that, had Hahnemann been able to learn the actual causes of diseases; he would have

carried his proposition much further than the empirical administration of drugs. Without any knowledge of the action of drugs on cells, without knowledge of bacteriology, without knowledge of the definite laws of biology, still he could catch a glimpse of the greatest principle of physiology and suggest its therapeutic application.

This principle, that is, of adaptation, forms the basis of all the defensive processes of the human organism. Sajous contends that the body has an autoprotective mechanism, a chain of organs, whose functions are (1) to detect the presence of alien substances within the circulating fluids, and (2) to initiate the process of defense. This process consists (1) of changes in the circulation, respiration and metabolism, looking to the chemical and mechanical elimination of poisons; (2) through the nervous system, to warn the tissues and cells of the presence of danger, and cause them to enter a molecular condition of resistance even before the toxin has reached their vicinity. His contention would be reasonable even without proof. Why should we expect, in a highly differentiated organism like the human body, that each cell must be bathed in toxin before it becomes aware of the presence of that toxin within the body? We do not expect a man swimming in a lake of albumen or other food matter to absorb it through his skin, simply because a moneron takes its nourishment in at the periphery. If the human organism, in its long process of development, has had to evolve a mouth, teeth, stomach, intestines, and accessory organs of digestion and absorption, and been forced to provide an organ for every function, is it possible that we have never gotten beyond the stage of monocellular organisms in detecting and destroying poisonous substances within the tissues? Nothing is more necessary than a system of organs whose

sole function is to detect the presence of toxins, and to bring about such chemical changes in the fluids of the body, and such physical and biological changes in organs and tissues, as will augment those cellular activities which constitute the aggressive resistance of the body to disease. There is such a group of organs, acting through the nervous system, as amplified by Sajous. It consists of the pituitary gland, the thyroid, and the adrenals. Drugs which lend artificial aid to this system of autoprotection, by direct action upon these glands, or indirect action upon the peripheral nerves, are bringing about adaptation, and consequently, follow the law of similars.

We shall be compelled to interpret the actions of many drugs in this new light. For instance, we all have been taught that digitalis acts directly on the heart muscle, basing the idea on experiments upon the exposed hearts of animals. The weakest solution which will so act on the exposed heart is one in 50,000. Yet, we know that the hypodermic injection of 1/100 grain of digitalin has a pronounced effect on the heart beat; this dose would form with the circulating blood a solution of about one in five million! We need to look further, since this solution certainly acts upon some tissue much more sensitive to its presence than is the heart muscle. We think we know the action of quinine. Five grains of quinine, often repeated, will kill the malarial parasites in the blood. But a solution of one in 10,000 of quinine is not very powerfully germicidal. In what way, then, does quinine cause the plasmodii to be destroyed? The only statement concerning the action of quinine on blood cells, is that it causes the white cells to remain within the vessels, instead of wandering outside; this is very significant because the plasmodii are in the blood stream, and good soldiers will stay where the enemy

are. If this were the only effect of quinine upon the white cells—keeping them on the field of battle—the drug would be as effective against the spirochetæ of syphilis as against the plasmodii of malaria. But the administration of quinine causes the phagocytes to attack the plasmodii, alone, with more avidity, and to destroy them when they could not do this before. Then, upon the well established facts of adaptation, we can say that the absorption of quinine by the phagocytes produces similar molecular changes in them as the changes produced by the ingestion of the parasites or contact with their toxins. The actions of the two substances on the cell are similar and curing malaria with quinine is on the principle of *similia similibus*. One-fourth grain protoiodide of mercury, administered four times a day, will kill the spirochetæ. One day's dose will make a solution of only one in 50,000 with the blood. If it does not make a germicidal solution of the blood, what is its action? It is patent that the germs are gotten rid of, and that by the phagocytes. *Materia medica* enlightens us with the information that mercury has some action, not yet explained, on the blood cells. Whatever that action is, it gives to these cells fighting properties never before possessed by them against the spirochetæ, identical properties the cells would acquire if they should become adapted to the germ itself. If mercury produces adaptation and aggressiveness to the spirochetæ, the actions of the two—germ and drug—upon the cell, are similar, and curing syphilis with mercury justifies the law of similars.

The injection of ten million dead streptococci into the circulating fluid does not change the character nor the qualities of the fluid, but it does give millions of phagocytes an opportunity to whet their appetites on a diet of streptococci, without suffering harm,

and thereby gain strength for a full meal of live ones. Who will say that the action of mercury on white cells is not the same as this, as regards their attitude toward spirochetæ? Or that quinine does not produce specific enmity to the plasmodii? Or that the salicylates do not urge these cells to devote their entire energy to hunting down the germ of rheumatism, and, to a less degree, the influenza bacillus or the streptococcus?

Sajous says that therapeutics must have as its foundation for the future, the production of artificial immunity—which is adaptation. So, when a microbic infection occurs, the aim must be to produce as rapidly as possible an adaptation of the cells of the body to the invader and its toxins. This is being done in our modern medicine for various diseases. The first step was the adaptation of the human nerve tissue to hydrophobia, by the administration of desiccated spinal cords infected with Negri bodies; then, vaccination for smallpox; then, diphtheria antitoxin; then, the treatment of tuberculosis with tuberculin; then, tetanus antitoxin; then, the treatment of streptococcal infections with streptolytic serum and streptococcal vaccine; and a host of

similar preparations show the drift of investigation—the staphylococcal, the pneumococcal, the gonococcal, the colonic, the typhoid, the anti-dysenteric, the anti-choleric, the anti-bubonic. Many things hinder advance along this line; such as the tendency of bacteria to themselves undergo adaptation to the physical peculiarities of particular hosts; the limit of cells to react, cells continually stimulated in one direction becoming exhausted and unable to respond to even the slightest stimulus from another influence; the uncertainty of laboratory products.

What place have drugs in such a therapy? We shall find, in the years to come, that, all unknowingly, we have been using many drugs correctly; but we are to learn many things, which we do not now know, about their actions, and these things will justify the title of this essay. In fact, having the causes of diseases within our knowledge, we shall some day be able to use drugs and specify biological products together, in such a way as to produce definite and accurate results—thus realizing the greatest aim of the true physician, to be always Nature's aid and never her stumbling block.

23 E. Adams St.

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## THE LOS ANGELES HEALTH DEPARTMENT.\*

### THE MILK SUPPLY.

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BY MRS. CHARLES FARWELL EDSON, LOS ANGELES, CALIFORNIA.

I had the inspiration last August of having Florence Kelley, General Secretary of the Consumers' League, as my house guest for a few days. I then learned what women were doing in other cities, not for self-culture but for the benefit of their cities. She asked me the condition of the Los Angeles milk supply. I did not know, and what is more I knew of no woman

who did. I found out from Dr. Powers something as to the needs and then decided that there was no field of activity for the Friday Morning Club that could be made so fruitful. Dr. Powers spoke to the Club in October; this was followed by the appointment of a Committee of Public Health, and the study I have made as its Chairman of the milk situation,

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\*Report of the Public Health Committee of the Friday Morning Club, by its Chairman.



local and general, has led me to the following conclusions:

In considering the possibility of ever obtaining a clean milk supply and the factors that operate to obtain it, I wish to speak of three essentials:

1st.—The awakening of the general public to a realization of present conditions and needs, and also how necessary it is that the men in charge of our Health Department may know that there is an intelligent and interested public support and appreciation.

2nd.—The reorganization of the Health Department to meet the demands of a growing city by amending the charter and the elimination of all political influence, also the improvement in the civil service so that it may be easier for an inefficient man to be put out of the department.

The Board of Health consists of the Mayor and four others, three of whom must be physicians. This Board appoints the Health Officer, who is supposed to be the Executive Head of the Health Department. This Officer can neither appoint nor dismiss his subordinates. This is done by the Board of Health itself. The Board may organize itself into committees and deal directly with the inspectors, and the Health Officer can be entirely ignored. Only the common courtesy of inspectors would keep the Health Officer informed of what they were doing. Yet he is under bond to protect the city's health. In a word it is like many other departments of our city government. Much responsibility with no authority. One cannot imagine a more archaic or cumbersome machine, and how any man can accomplish anything with checks at every step is a problem to me beyond solution.

There is probably no department of our city government that needs such complete overhauling as the Health Department, not so much as to personnel as to the methods of administra-

tion. I recommend that a committee from the medical societies be appointed to confer with one from the Health Department and other civic bodies interested to propose a plan of reorganization and to have the same presented to the Charter Revision Commission. This should certainly be done before the proposed amendments to the charter are adopted. The Health Officer should either be a member of the Board of Health, which he cannot be now under our present charter as no one can serve on this Board and receive a salary, or be in a position where he can have a voice in its deliberations by virtue of his office. If it should be decided by the Charter Revision Commission that the Health Officer should not be a member of the Board of Health, then provision should be made that directions and orders to inspectors and other employes of the Board be made through the Health Officer and not made directly by individual members of the Board of Health to employes.

Our present Health Officer, Dr. Powers, has served this city nearly twenty years and has established a reputation among sanitarians as being one of the best Health Officers in the United States. There being probably few cities so free from epidemics of all kinds, and, when they do come, where they are so quickly controlled. He has been less handicapped in this department than in any other; but when you come to the control and inspection of the milk supply, it is another story. Here property interests begin to cry for protection. Dr. Powers has not in the past received the support from Councils and Boards of Health that would enable him to properly safe-guard this essential and most susceptible article of food. Our Milk Ordinances are most excellent, and if we had an adequate force of veterinarians and inspectors to rigidly enforce them, we would be well protected and would not now be start-

ing a crusade against tuberculous cows, but our herds would have been comparatively free from this most prevalent and dangerous disease. This may seem a long way off from "food for babes," but it is these men, who form our health department, who absolutely control the lives of the children of this community, and upon their efficiency, honesty and ability, does the health of the city depend.

This city receives milk from 2000 dairies, some as far away as San Luis Obispo, Modesto, Kern, Santa Barbara, Riverside, Orange and San Diego counties.

We have now five Milk Inspectors to patrol, inspect and enforce the laws governing the production and distribution of milk. They are supposed to inspect this great district, the creameries, wholesale distributors and milk depots. You can draw your own conclusions as to the possible effectiveness of their work. Some of these men are efficient and are trained dairy men, but it would take twice as many good men to make any real impression. We receive in Los Angeles 650 gallons of double cream daily that comes from uninspected farms. This is made into butter. Two tons of cream comes in weekly from San Luis Obispo. We have no city veterinarian and no tuberculin test has been made by the city for over two years. Without a competent veterinarian no tuberculin test under municipal control can be made. It is impossible to make adequate inspection or to follow up orders to clean up with the present small force of men. The dairy men need not only orders to clean up; in many cases, they must be instructed. On account of the low price of milk paid to producers last year and the few years previous by the milk trust, a great many of the best dairy men were forced out of business, leaving many men now supplying milk to this city who are ignorant, careless

and utterly unfitted to run a dairy that is not a menace to the health of babies, and they are the ultimate consumers. So it is necessary for the inspectors to be practical dairy men so they can teach these men how to keep themselves, their herds and premises in good condition. The cost of hay, labor and the land itself is greater than in the East. The milkers are men who seldom stay long at a place, so it is difficult to get expert or even adequate help as is needed. So the dairy man has his troubles that enter into the situation at the bottom.

Civilization has set a new standard for what is clean milk and the public cannot expect to get clean milk at old prices. The really vital and pressing question is getting the herds rid of the tuberculous cows. Dr. Ward B. Rowland, County Veterinarian, tells me that at least 10 per cent. of the cows producing milk for the Los Angeles trade are tuberculous—that it is evident to any veterinarian. If the tuberculin test were applied probably twice as many more would be found infected.

Now the danger is great from such cattle. Bovine tuberculosis has been positively proven to be the cause of much tuberculosis in children. Von Behring says that cow's milk fed to infants is the chief cause of tuberculosis in man. Heller says that 45 per cent. of tuberculous children show primary intestinal infection.

The bovine bacilli are more virulent than the human, and, according to the report of the British Royal Commission, out of sixty cases of tuberculosis examined, fourteen proved to be caused by bovine infection.

Foreign and native investigators who have studied ordinary market milk say that 5 to 55 per cent. shows tubercle bacilli under the microscope.

The milk is infected through diseased udders and through the manure that gets into the milk as dust and dirt.

The tuberculin test is the best method yet found to prove a cow's condition. The report of the Department of Agriculture is that in 97 per cent. of cows tested the diagnosis has been reasonably accurate. It should only be accepted when done by the City's Veterinarian, and all cows reacting or proven to be tuberculous should be eliminated from dairy herds and the cow marked with a metal button in the ear or branded, to show her condition.

In Pennsylvania the State pays 70 per cent. of the cost of the condemned animal, a fixed rate being made for ordinary and registered cows, also New York, Wisconsin and Minnesota.

Cattle have many other diseases that are a menace to man and some of the greatest epidemics of typhoid, diphtheria and scarlet fever have been carried in milk. This makes the only excuse for pasteurization, which is not a process of cleanliness—but simply means heating milk to a certain temperature. In Los Angeles we have not had real pasteurization but only the kind called "flash" or "commercial pasteurization." It is of absolutely no value in protecting the public against milk borne diseases, but only kills the sour milk germs and preserves the milk. If pasteurization were done properly, you would not see on the Friday Morning Club monthly bulletin reports of dairies distributing pasteurized milk with a bacterial count of 1,000,000 and over per cubic centimeter. It should be sterile. This shows that the pasteurization was incomplete, or the milk had become reinfected by carelessness in handling, dirty bottles or some of the innumerable other things that can contaminate milk. The object most greatly to be desired is clean, cold milk from tuberculin tested cows, but until that can be accomplished, the only safety for so large a city is milk, from herds not tuberculin tested, to be pasteurized at not less than 149°F. for

not less than 20 minutes. This pasteurization at a low temperature for such a length of time does kill all the pathogenic germs but does not devitalize the milk by destroying the ferments which are supposed to be of value in the digestive process. Nathan Strauss of New York City has reduced the infant mortality of children under 5 years 50 per cent. in the last few years by the establishment of milk depots in the tenement house districts of New York, which sold and gave away pasteurized milk to the babies. There is danger in keeping pasteurized milk too long as it does not sour. The lactic acid germs are the most easily killed and the milk is unfit for use before it tastes disagreeably.

One of the means by which the Health Officer keeps informed as to the age, temperature and dirtiness of the milk is by the bacterial count. It is only indicative of conditions and cannot be said to be conclusive. In many cities a standard is set of the number of bacteria per cubic centimeter allowed for safety. In Los Angeles it is 500,000, and is much higher than in many Eastern cities. Dr. Goler, the great sanitarian of Rochester, N. Y., has shown how the infant mortality accompanies the bacterial count. In summer when the weather is hot and the germs grow rapidly, children died in great numbers. As the weather cooled, the milk was not so hot and the germs did not flourish so luxuriantly, and the sickness grew less. He decided to keep the milk cool, with the result that keeping milk below 50°F. prevented the growth of germs and reduced the infant mortality nearly two-thirds; for instance, for the 9 years between 1887 to 1896, the average deaths in July were 1010. The 9 years between 1897 to 1906 after the milk war was begun, the month of July showed an average of 413 infants' deaths.



This brings us to the third important part of the milk problem—cool milk. The milk should be cooled to 50°F. within an hour after milking and not be allowed to go above that limit except during the pasteurizing process, when it should be immediately cooled to 50°F. But here where farmers cannot put up natural ice, it has seemed impossible to enforce such a temperature. The ordinance did call for 60°F. but it was not possible at that time to demand its enforcement. It was changed to 70°F., as the average water supply is 68°F. Milk can be cooled to 70°F. and in many places lower, but it is almost impossible to keep it there. It must be hauled to the milk train, which to some places only comes once a day. There the railroads make no provision for its shelter from the burning sun or animals. It gets hot and the cars are not refrigerated, and it gets hotter, many times coming as high as 100° and smelling badly. The dairy man gets discouraged trying to do something he knows will be undone by the railroad and the wholesaler feels it an injustice to destroy his property when it was not his fault.

I hope a public sentiment can be created that will force the Wells Fargo people to provide refrigerator cars and the railroads to provide covered sheds to keep the cans in until the trains arrive. If the transportation

people will do their duty, the producer and distributor can more easily be forced to meet their part of the problem. If not, the next legislature must be asked for laws compelling the railroads to provide proper refrigeration during the six summer months. We cannot expect these improvements unless the public is willing to pay its share in the increased cost of milk.

To sum up my paper—the things to be undertaken immediately are the reorganization of the Health Department, more rigid inspection which will require at least four more inspectors, a City Veterinarian who shall also be chief milk inspector, who can enforce a tuberculin test ordinance. We will then ask for cook milk, but at present use your influence with the legislative committee of the City Council for these additions to the inspectors' force. They are Messrs. Andrews, Betouski, Gregory and Judge Lusk. This is essentially a woman's problem and I do not believe that much interest can be created in this question or will it be settled right until the women of this and every American City thoroughly understand how near their household is to city politics and then they will see that, to properly protect and care for their home, they must have the only dignified weapon given to American citizens, the ballot.

June 18, 1910.

## THE SURGICAL TREATMENT OF ULCERATIVE PERFORATION OF THE HOLLOW VISCERA.\*

BY ANDREW STEWART LOBINGIER, A.B., M.D., LOS ANGELES, CALIFORNIA.

The latest authoritative contribution in American surgical literature on perforating gastric and duodenal ulcer gives the startling mortality of over 45 per cent. The report comprises twenty-two cases covering a period of sixteen years,—the entire combined experience

of two of the most capable and carefully-trained surgeons in this country, Dr. John H. Gibbon and Dr. Francis T. Stewart† of Philadelphia.

There has been no report in our language which teaches the lesson this symposium seeks to emphasize with such clarity as this summary of Gibbon

\*Read before the So. Cal. Med. Assn., Los Angeles, Dec. 5, 1909.

†Journal Amer. Med. Assn., Nov. 6, 1909.

and Stewart. It is because of the fact that this report reveals that we feel justified in reiterating again and again the plain and simple lesson in perforating visceral lesions. It is because these obvious facts still, at this late day, continue to be overlooked or disregarded by general practitioners and men who should know better, that such a discussion as this, this afternoon becomes necessary.

Notwithstanding these able men, celebrated for their technical skill, had employed the best methods known to us in meeting the conditions, their mortality could not be kept lower. The reason is the tragic fact that ten, twelve, fifteen, twenty, twenty-four, thirty-six, forty-eight and even seventy-two hours are allowed to elapse before the surgeon is called to operate. It is not fair, however, to invariably place the blame with the professional gentlemen who first see these patients. Often the family and friends do not readily give their consent to immediate operation. But it has been observed very often by surgeons, that this consent can easily be had if it is made clear to the patient's friends with proper emphasis by the family physician who called the surgeon, that prompt and immediate closure of the perforation is the only hope the patient has to survive. If the family physician hesitates or is uncertain or shows the slightest doubt of the diagnosis, the patient and friends only too eagerly grasp at this limp indecision as an excuse for the delay that only too surely proves fatal.

These remarks are applicable to all perforative lesions of the gastro-intestinal tract, and it would seem with even more urgency in perforating typhoid ulcer. We may predicate any mortality percentage with reasonable certainty on the time which intervenes between the sharp initial perforative pain and the surgical closure of the visceral rent. But not absolutely, for the state

of vitality and resistance of the patient and the character of the bacterial flora which are poured out on the peritoneum are very vital factors, aside from the time element, in offering a prognosis.

Alcoholics and luetics are not favorable subjects for repair and there is a very distinctly lowered resistance in them. Almost all of the cases of ulcerative perforation give a history of acute bacillary infection, as in typhoid or cholecystitis, or of anaemia and protracted indigestion and malassimilation of food for a period of years in gastric and duodenal ulcer. These are not good subjects for surgical repair and make it necessary that operative measures shall be conducted with the greatest facility and that every safeguard shall be provided for prevention of shock.

There is no time after the acute perforative symptoms to prepare the patient beyond well accepted measures of stimulation. I give these patients coffee and warm salt solution by the rectum, wrap them in a warm blanket, and after the diagnosis is made, give them a quarter of a grain of morphia with one hundred and fiftieth grain of atropia hypodermically. This will bring the patient to the table warm and comfortable with circulatory and respiratory rhythm well re-established. The operating table should be provided with a warm water bed or a thick wool pad warmed its entire length by bottles or heating pads, a comfort and protection I provide for every patient operated upon. In the toilet no water is permitted to wet this pad, but it is kept dry and warm throughout the operation.

The incision for gastric, duodenal and gall bladder perforations should be through the right rectus from the costal border to a level with or slightly above the umbilicus. For typhoid perforation the incision should be either through the right rectus below the navel or the

Battle trap-door incision, through the anterior sheath, pushing the rectus internally, and through the posterior sheath.

Most of the perforating ulcers which I have seen in the stomach have been prepyloric on the anterior surface of the antrum. One was a saddle ulcer involving the entire lesser curvature with the perforation at the crest. Moynihan first called our attention to what he termed the "sub-acute" variety of perforation, where liver, omentum or neighboring viscera lightly and temporarily cap over the perforation and close it from frank leakage. I have had but one of these and it was lightly sealed by the edge of the liver in an adhesion easily broken down. Underneath was the characteristic punched out perforation of an acute ulcer a half centimeter in diameter. Acute and sub-acute ulcers can often be easily reefed in by purse-string and a double Lembert of pagenstecher. But in chronic and deeply indurated ulcers with extensive and dense proliferative deposit of fibrous tissue, I have seen them as rigid as sole leather. These rents can only be closed by excision of the indurated portion, or if that cannot be done because of the wide extent of infiltration, then it will be necessary to graft over a double layer of omentum. In one case I was unable to secure any tissue for this purpose either from the great omentum or the gastrohepatic ligament, and was compelled to draw backward toward the cardia the anterior cortex of the duodenum, fixing it over the perforation and the surface of the indurated ulcer to its periphery by a triple Lembert of pagenstecher linen. I then did a posterior suture gastro-enterostomy. The patient, a man of sixty years of age, made a good recovery and is now well.

Whether a gastro-enterostomy shall be done at the time the perforation is closed is easily to be determined by the patency of the pylorus after the closure of the perforation is effected. Should

there be an obstructive narrowing, gastro-enterostomy must be done. It will prolong the operation from fifteen to twenty minutes, but there is nothing else to do. I have never closed a perforating visceral ulcer without draining the abdomen. There may be cases so recent or so promptly capped over by adjacent viscera, as to leave the peritoneum but slightly infected and not requiring drainage. But in the five acute perforative cases I have closed, each has had a plastic exudate more or less widely disseminated over the entire viscera. Four or five cigarette drains have been placed in the hypochondria, flanks and pelvis; the upper ones were left forty-eight and the lower ones one hundred hours before withdrawal. I have not found it necessary to wash the abdominal cavity out and as a rule believe it is best to disturb the viscera as little as possible, doing only a little careful sponging in the vicinity of the perforation. A large amount of escaped fluid was encountered in but one gastric perforation and in one typhoid. No attempt was made to sponge this out, but the drains were placed frankly and carefully. Some of my patients have been operated in the reverse Trendelenberg posture and all of them have been taken to their rooms in the Fowler position and that position maintained for five days. Murphy's proctoclysis has been used on all of them since this method of administering salt solution has been presented to us, and continued for several days. Two patients I have had bore it badly and it was persisted in with great discomfort to them. All of them, and many other patients suffering from peritonitis from other causes to whom saline proctoclysis has been given, have required the normal salt solution to be diluted 50% to relieve them of the intense thirst. I am not now administering normal salt solution per rectum in large quantities except in half dilution with sterile water.

The technique in typhoid perforation



has been substantially that used in the perforations in the stomach and duodenum. I have not found it necessary to resect the ulcer nor found the lumen of the intestine seriously narrowed by the closure as some writers have observed. This embarrassment must only be possible in closely related multiple perforations, a very, very rare condition in typhoid ulcer; or more probably from a crudely done Lembert with an extravagant use of the intestinal wall.

In my services as pathologist to two large hospitals a number of years ago, I had observed the rarity of adhesions in typhoid perforation as compared with perforation of the stomach and duodenum or of the gall bladder, unless in the latter it was due to stone, which was always associated with adhesions. This observation has been remarked by most writers in recent years, and I have only seen one exception—a perforation of a typhoid ulcer in the ileum ten centimeters from the ileo-cecal junction which was seen and closed recently, wherein the loop of the ileum affected was rather snugly adherent to the peritoneum over the psoas muscle. The adhesion, however, was at the opposite pole from the perforation, which was at a site quite unusual, near the mesenteric junction. Feeding of liquids was given by rectum in the stomach and intestinal cases for four or five days, after which liquids in small quantities were given by the mouth. I have used no local anesthetics in any of these operations. Ether has acted well and there seems no reason to suggest any other anesthetic. The operative procedure should be one of smoothness and precision, and rarely need be more than eighteen to twenty minutes in length, unless a gastroenterostomy is necessary. I have observed no shock in the cases I have seen, either from the operation or the anesthetic.

Three years ago Wm. J. Mayo reported seven gastric ulcer perforations with two deaths and nine duodenal

perforations with three deaths, a total of sixteen cases with five deaths, a mortality of 31.25%. The year previous Moynihan reported 22 cases of gastric and duodenal perforations. "There were 14 recoveries, a mortality of 36.4% In the first 10 cases there were 6 deaths; in the last 12 there were 2 deaths. Fifteen of the cases were gastric and 7 duodenal."

It would lend little interest to this symposium to give in detail the surgical history of the few ulcerative perforations which have come under my care during the six years I have been working in this city. There have been but five of them, three of the stomach, one of the ileum, after two weeks of typhoid, and one of the gall bladder. Four of them recovered. One patient with perforation of the stomach died thirteen days after the operation of intrathoracic abscess, the origin of which was probably subphrenic.

One cannot study even so small a number of cases as this, however, without gaining a broader vision of the pathology and symptoms which make diagnosis and successful repair possible. The series of twenty-two cases reported by Gibbon and Stewart from sixteen years of critical study by them and which I have referred to in the beginning of this discussion, has been exceedingly instructive to me. The cardinal lessons we learn from these experiences in perforative lesions are: First, the necessity of making a prompt diagnosis, and second, the urgency of equally prompt surgical intervention. The time that elapsed between perforation and operation in the Gibbon-Stewart series was:

3 hours in 2 cases; 4 hours in 2 cases; 5 hours in 4 cases; 7 hours in 1 case; 9 hours in 1 case; 12 hours in 2 cases; 16 hours in 2 cases; 17 hours in 1 case; 24 hours in 3 cases; 26 hours in 1 case; 36 hours in 1 case; 48 hours in 1 case and several days in one case. The ten deaths which occurred out of twenty-

two patients operated were all but one in those operated seventeen hours after the perforation. Six of these deaths occurred within forty-eight hours after they were operated, presumably, the authors believe, of peritonitis.

In my own series the time elapsing between perforation and operation was: 7 hours in the first case of gastric perforation; 5 hours in the second (which ultimately died of thoracic abscess); 6 hours in the third case; 8 hours in the typhoid perforation and 14 hours in the gall bladder perforation. I desire to make it clear that in every instance the gentlemen who called me to close these perforations had made an immediate diagnosis and that the time consumed was that which naturally elapses in private practice in the surgeon reaching the house or hospital where consultation is held, and in preparing for the operation. In the case of the gall blad-

der perforation some time was consumed in gaining the patient's consent to be operated upon.

It is only five years since Richard Harte and Astley C. Ashhurst gave us their classical resume on "Intestinal Perforation in Typhoid Fever," wherein in the collection of 362 cases reported between the first closure by von Milulicz April 7, 1884, to January, 1904, there was a mortality of 74.03%. Within the time which has elapsed since that report it would be reasonable to suppose that this discouraging record had been considerably improved; but from a study of the isolated reports of surgeons in various clinics of the world in typhoid perforation the mortality is still over 60%. The mortality of gastric and duodenal perforations, in the hands of the most distinguished surgeons in this field of work, is still in the neighborhood of thirty-five per cent.

Herman W. Hellman Building.

## SALIVARY CALCULI WITH REPORT OF CASES.\*

BY JOSEPH M. KING, M.D., LOS ANGELES, CALIFORNIA.

Salivary calculi are of relatively infrequent occurrence, only about 300 cases being recorded in the literature, although, of course, the greater number of cases go unreported. They are seen most commonly in middle life, from five to ten times as often in men as in women, are usually single, of yellowish color with a granular surface, and are composed chiefly of calcium phosphate and calcine carbonate, varying in size from a grain of sand to two inches in circumference.

They occur in the submaxillary gland and its duct very much more frequently than in the parotid or sublingual glands or their ducts, and in Wharton's duct three times as often as in the submaxillary gland. They are always of inflam-

matory origin, the streptococcus being the disturbing factor in the great majority of cases, although the leptothrix buccalis has also been found. Anything causing increased flow of saliva, as the chewing of tobacco, is thought to act as an etiological factor. Formerly it was thought that the entrance of foreign material into the ducts, such as minute specks of tartar, bits of straw, or small seeds was the determining factor, and it is probable that foreign material often does form a nidus around which bacteria by their actions cause the deposition of the lime salts. This would explain why the submaxillary gland and Wharton's duct with its opening beneath the tongue and much larger than those of the sublingual gland

\*Read before the Los Angeles County Medical Association, May 20, 1910.

is so much more frequently the seat of calculi than other locations.

If the stone does not cause retention of secretion it may be present for a long time without symptoms unless suppuration occurs. Usually the earliest symptom is the so-called salivary colic, occurring at mealtime, particularly when dishes are served which "make the mouth water." With this pain a swelling may occur either in the floor of the mouth or just within the angle of and beneath the jaw, depending somewhat on the location of the stone. This swelling can often be made to disappear by pressure which expresses the retained secretions. There is usually some difficulty in chewing and swallowing. Often there are acute exacerbations with sore throat, increased swelling in the submaxillary region and inflammatory symptoms, and finally suppuration is apt to ensue with discharge of pus from the mouth of the duct, or an abscess forms in the floor of the mouth, discharging spontaneously with or without the expulsion of the stone. Sometimes the inflammatory condition causes cervical cellulitis, extending down even as far as the clavicle, and it may be mistaken for Ludwig's angina.

If the stone occurs in the salivary gland, the gland is gradually enlarged, due to the formation of fibrous tissue, and is usually tender to pressure. At times acute swelling takes place and it becomes very painful, the inflammatory symptoms subsiding, only to return at a later date.

Calculi occurring in the duct can often be felt in the floor of the mouth or by a probe passed into the duct. In stone of the gland itself a reliable history is essential, but even then many of them are mistaken for malignant disease.

The treatment is surgical, slitting the duct and removing the stone with forceps, and putting in a stitch or two. If abscess has formed free incision is necessary, when the calculus usually is

evacuated with the pus. In stone in the gland it is necessary to cut down from without. If the gland is split open the calculus may be removed and the gland itself preserved, but if suppuration or extensive fibroid changes have taken place, or municipal calculi hard to remove are found, it is better to ablate it. Recovery is prompt and recurrences rare.

The following illustrative cases from which I present the specimens have recently been seen.

CASE I.—November 15, 1909, J. H., age 60, blacksmith, an inveterate chewer of tobacco, consulted my colleague, Dr. Jenks, complaining of soreness in the mouth under the tongue, and inability to chew with comfort or wear a lower plate. He also complained of a bad taste in his mouth. He said that he first had a similar attack two years ago which had lasted from a week to ten days, with a recurrence about ten months later, but with no symptoms from that time until the present.

Examination revealed some ulceration about the opening of Wharton's duct, with pus issuing from it. On palpation the right submaxillary gland was about twice the size of the left, rather tense and quite sensitive. A small hard mass could be felt beneath the tongue to the right of the frenum. A fine probe, passed into the duct for a distance of about half an inch, came into contact with the suspected calculus. The duct was slit open and the calculus removed with forceps. A catgut suture was introduced and recovery was prompt.

CASE II.—G. A. L., male, 34, native of Minnesota, consulted me on March 23, 1910, for a tumor in the submaxillary triangle on the right side, which was giving him considerable pain, lasting all the time but worse at mealtime. Chewing and swallowing were not painful, and he had no constitutional symptoms. His teeth were good, no tartar



was seen on them, and he did not use tobacco.

In June, 1908, he noticed a lump in the side of his neck and had a slight sore throat with pain which was noticed only at mealtimes, and was much worse if he attempted to eat strawberries, of which he was very fond. The mass was hard, did not disappear at any time, and was only slightly painful to pressure. His mouth was not sore. It was supposed to be an enlarged lymphatic, and an antiseptic gargle was used, and iodine painted on externally. After a month or six weeks the pain disappeared but the lump did not go away, very gradually increasing in size. No pain was then felt until the early part of April, 1910, when it began to return and finally became quite severe, lasting all the time.

On examination a submaxillary gland about the size of a small English walnut was felt. It was very hard, freely movable, and did not seem tender. Wharton's duct was not palpable, there was no ulceration at its mouth, or pus issuing from it. Removal of the gland was advised, as it was thought that it might be sarcomatous.

On removal the mass was hard throughout, and heightened the suspicion of malignancy; when it was split open, however, a hard yellowish stone weighing 32 grains was found in its substance just within the beginning of the duct, which it had obviously obstructed. Recovery was uneventful.

Tincture of eucalyptus comes highly recommended in hemorrhage by an English writer, when applied externally in case of bleeding tooth socket after extraction, and in cuts; also in hemorrhage in minor surgical operations. He believes that with the use of calcium chloride internally and an external application of tincture of eucalyptus, almost any form of hemorrhage can be controlled.

#### A SIMPLE METHOD FOR REMOVING FOREIGN BODIES FROM THE NASAL CAVITIES OF CHILDREN.

According to Dr. G. Bieser (*Pediatrics*, July 15) the employment of the usual methods for removing foreign bodies from the nasal cavities in struggling children and without anesthesia is attended not only with the dangers from traumatism, but also with difficulty and occasional failure. The employment of serodynamics may overcome these objections. The method advised by the author is as follows: The child is placed in the ordinary position for intubation, the assistant holding his hand snugly over the child's mouth; one end of a piece of rubber tubing is snugly inserted in the nostrils opposite the one holding the foreign body, the other end is inserted into the operator's mouth; the operator then blows suddenly and vigorously into the nostril and dislodges the offending body. The simplicity, cleanliness and efficiency of this method are apparent, the child's struggles causing no traumatism.

#### A MEANS OF EMPTYING THE BLADDER.

The bladder, when partially paralyzed from parturition, or any other cause, can always be made to empty itself perfectly by throwing a large amount of very warm water into the bowel, thereby doing away with the necessity of using a catheter—a most important consideration, particularly when the patient lives at a distance from the doctor. After difficult and protracted labors I have been obliged to use the catheter every day for weeks at a time, which was annoying to the patient and inconvenient to myself. Since using the above recommended plan, I have had no trouble in this direction, the bowel and the bladder emptying themselves at the same time.

# SOUTHERN CALIFORNIA PRACTITIONER

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## EDITORIAL

### CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS.

The regular meeting of the State Board of Medical Examiners was held at 11 o'clock Monday, August 1st, in the office of the Secretary, Dr. Charles L. Tisdale, Room 929 Butler Building, San Francisco. Every member of the Board was present.

There were 151 applicants who had complied with all of the legal requirements. Of these 151 there were 30 osteopaths, that is, one-fifth of all. The applicants were generally young, under 35, and there was scarcely a gray-haired one amongst them. There were 22 women, about one-seventh.

Each member of the Board then submitted his questions and they were gone over very carefully by the whole Board. Dr. Roblee of Riverside voiced the general sentiment of the Board when

he stated that he wished we could make the examinations more practical. Dr. Roblee has Physical Diagnosis. He would like to examine applicants in Practical Urinalysis and have the class make tests, and also have them make actual chest examinations. The difficulty, if that method were adopted, would be the time. One hundred and fifty-one applicants to take the time on one question, for instance, making the analysis of a specimen of urine, or to examine a man's chest, means several hours. The result of the discussion was that each examiner should make his work as practical as possible, remembering the time limitations.

The members from the North had heard nothing of the death of Dr. E. C. Buell, and were shocked with the news. The editor of the SOUTHERN CALIFORNIA PRACTITIONER was appointed

to draught resolutions, and he presented the following, which was adopted unanimously and ordered spread upon the minutes:

"WHEREAS, Dr. E. C. Buell, who had practiced medicine and been noted as a surgeon in Los Angeles for over twenty years and who was a member of the California State Board of Medical Examiners from 1901 to 1907, and who served as the first President of the Board, died of appendicitis in Genoa, Italy, July 20th, 1910;

*"Therefore Be it Resolved* that we, the members of the California State Board of Medical Examiners, in session assembled in San Francisco August 1st, 1910, hereby register our deep sorrow at the untimely taking away of our friend and confrere.

"Dr. Buell was eminent in his professional work, universally respected by all physicians who knew him and deeply beloved by those who were thrown in close association with him.

"As a citizen he was honorable, upright and public spirited; as a man he was delightful, lovable and generous. One year ago he was moving into a beautiful residence to enjoy the well-earned comforts of an ideal home. In December, 1909, his wife suddenly died of organic heart disease. This trip around the world, which his friends hoped would bring him surcease of sorrow and renewed health, ended with a distressing death in a foreign land.

"To his brother and sister in Ohio we send this as a testimonial of the high character of Dr. Buell, and the love and esteem that we bore him."

The examinations were held in

Golden Gate Hall, beginning at 8 o'clock Tuesday morning, and lasting for four days. The questions appear on another page. There was much dissatisfaction among the applicants over the questions on chemistry by Dr. Geo. F. Reinhardt of Berkeley. A round-robin appeal to the Board was signed by a large number but it was not presented.

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### DEATH OF LIEUTENANT ADAMS.

Paul A. Adams, First Lieutenant Medical Reserve Corps, United States Army, died from peritonitis following operation for acute appendicitis, July 3rd, 1910, in Honolulu, H. T.

He was born in 1875 in Boston, Mass., and received his preliminary education in the schools of that city. Entering Stanford University he received after completing the course there the degree of A.B. in 1898. His medical degree was taken at the College of Physicians and Surgeons of Columbia University, New York City. He served as professor of Biology and Physics at Montana University, at one time, and was considered a man of broad scholastic attainments.

His military career began in Battery "A," Light Artillery, Montana National Guard, in 1891, and extended over five years there, in the Artillery, Infantry, and Signal Corps. Coming to California he was discharged on account of "Removal." Shortly after Dr. Adams came to Los Angeles, he was appointed First Lieutenant and Assistant Surgeon, Seventh Infantry, National Guard of California. In June, 1908, he was



advanced to Major Medical Corps National Guard of California, and assigned for duty to the Seventh Infantry, N. G. C. About a year ago Dr. Adams took the examination for the Medical Reserve Corps, U. S. Army, and passed with a high average. Resigning his National Guard position in November, 1909, he was ordered to active duty and assigned to the Fifth Cavalry, U. S. Army, stationed at Schofield, Honolulu, H. T. He had a good and rapidly growing practice in this city, but for years his tastes had urged him to adopt a military career, and a year ago he decided to sacrifice his prospects in private practice, for the government service.

The Doctor was a member of the County and State Medical Societies, the American Medical Association, and the Association of Military Surgeons of the United States. He was a popular member of the University Club and prominent in medical circles.

He is survived by a wife and daughter, who were with him at the time of his death. His wide circle of friends here extends to them and the other members of his family their sincere sympathy.

#### THE ARIZONA MEDICAL ASSOCIATION—ITS 1911 MEETING.

Since the last meeting of the Arizona Medical Association in Phoenix, the American Medical Association has decided to hold its next annual meeting in Los Angeles, in June, 1911.

At a recent meeting of the Executive Committee of the Arizona Medical Association, it was decided to hold the

next annual meeting of this Association a few days prior to the meeting of the American Medical Association in June, 1911, instead of on May 3rd and 4th as was determined in Phoenix.

The Committee is of the opinion that this change will enable the Program Committee to procure the services of distinguished medical men from the East, to deliver orations and addresses at Bisbee on their way to Los Angeles. Moreover, the Arizona men will be much more apt to attend the meeting of the American Medical immediately after the meeting of the Territorial Association, than if they were to return home and have to make a second trip a few weeks later.

The exact dates of the meeting of the Arizona Medical Association will be announced as soon as the American Medical has set the dates of its Los Angeles meeting.

J. W. F.

Prescott, Ariz., Aug. 1, 1910.

#### ARIZONA TERRITORIAL BOARD.

The report of the Arizona Territorial Board of Medical Examiners for April and July is as follows:

##### PASSED.

Memphis, Tenn., Hospital Medical College .....	1901
Georgetown .....	1910
Northwestern University, Chicago .....	1907
University of Southern California .....	1910
University of Alabama .....	1910
University of St. Louis .....	1900

##### FAILURES.

Hospital College of Medicine, Louisville, Ky. ....	1897
Medical College of South Carolina .....	1910
University of Louisville, Ky. ....	1897
Medical College of South Carolina .....	1910
University of Illinois .....	1904

## EDITORIAL NOTES

Dr. W. H. Roberts, of Pasadena, is traveling in Japan.

Dr. P. Priestley Osburn, formerly of Pasadena, is now located in Hemet.

Dr. F. E. Corey, of Alabama, has recently taken a trip to the Yosemite.

Dr. T. E. Ellis, of Elsinore, Cal., has been very ill in the Riverside Hospital.

Dr. Willard Smith, of Phoenix, is spending the summer months at Catalina.

Dr. D. S. McCarthy, well known in Los Angeles, is now health officer of Hemet.

Dr. W. I. Simpson, of Phoenix, is spending his summer vacation in Los Angeles.

Dr. B. C. Strong, of San Bernardino, who has been very ill, is now practically well again.

Dr. Allen L. Bryant, of Glendale, Cal., who has been seriously ill, is now convalescing.

Dr. G. N. Stockwell, of Ventura, who has been quite ill, is again attending to his practice.

Dr. H. W. Fenner, of Tucson, recently spent several days at the Van Nuys Hotel, Los Angeles.

Dr. Wm. Bell, of Phoenix, with his family, is enjoying a well-earned vacation at Santa Monica.

Dr. E. Payne Palmer, of Phoenix, reports an abundant opportunity for hard work in Vienna.

Dr. W. Harriman Jones, of Long Beach, has been traveling in the East, and is now in Europe.

Dr. M. L. Loomis, well known as the medical director of the Santa Monica Bay Hospital, has opened an office in Venice.

Dr. W. Warner Watkins, of Phoenix, is spending the month of August in Los Angeles and the near-by beaches.

Dr. J. W. Trueworthy, who annexed a nice slice of the "Lucky" Baldwin estate, has been on a trip through Old Mexico.

Dr. A. F. Zimmerman, of Los Angeles, is traveling in Europe, and during his absence Dr. S. G. Edwards has charge of his practice.

Drs. E. R. Smith, A. C. Rogers, Rea Smith and Clarence Moore have returned bronzed and ruddy from a fishing trip in the Sierra Nevadas.

Dr. Ancil Martin, of Phoenix, Secretary of the Arizona Board of Medical Examiners, is enjoying a trip in the East during August and September.

Dr. D. C. Strong, of San Bernardino, who has been quite ill, is now attending to his practice. The engagement has been announced of Dr. Strong and Miss Jean MacDonald, of Redlands.

Dr. Virgil McCombs, county physician of Imperial county and chief surgeon of the Central Hospital, has been enjoying a five-weeks' vacation in Los Angeles and other Southern California towns.

After a protracted illness, Dr. Thomas Elwood Ellis, of Elsinore, Cal., died recently in the city of Riverside. He had been living in California for many years and had just passed his seventy-first birthday.

Dr. J. A. Munk, dean of the California Eclectic Medical College, who was recently elected president of the National Eclectic Association at their meeting in Boston, was tendered a delightful banquet by friends at the Hotel Virginia, Long Beach.

Dr. William P. Burke was recently elected president of the Board of Health of the city of Redlands, and Dr. Hamilton Forline was elected secretary. Dr. William A. Taltavall, Dr. G. G. Moseley and Dr. J. M. Wheat are also members of the Redlands Board.

Dr. David W. Rees, of Needles, Cal., died in Los Angeles on July 31st, 1910. He was born in London, England, January 19th, 1869. He graduated in medicine from the University of Southern California. He was a young physician of fine promise and had the high esteem of the community in which he lived.

Dr. W. V. Whitmore, of Tucson, Ariz., has recently been attending Commencement Day exercises of his Alma Mater, Bates College, Lewiston, Me. It was the twenty-fifth anniversary of the class of '85, to which Dr. Whitmore belonged. While in Lewiston, Dr. Whitmore was the guest of a classmate, the mayor of Lewiston. He also visited his old home at Richmond, Me., and he was the guest of honor of that city.

A Pasadena woman recently placed her elegant residence in the hands of a real estate firm for rent. They rented it to a consumptive family and one of this family died of tuberculosis in the house. The owner of the property then sued her agent for knowingly renting her house to a consumptive, asking \$2200 damages. The judge awarded her \$500. This decision will have an excellent effect. Agents have thus been taught a needed lesson.

Pasadena to the Front: At the recent annual meeting of the American Academy of Medicine, there was one member registered from San Francisco, one from Los Angeles and four from Pasadena, which shows the enterprise of the members of the profession in the last named city. Pasadena also furnished the president, Dr. James H.

McBride, and then it was at Pasadena that the great annual meeting of the American Institute of Homeopathy was held. Here's to Pasadena!

The death of Dr. Edward C. Buell, of Los Angeles, was a sad shock to his many home friends. The details of his death are not known, but the doctor was taking a tour around the world and from a letter received here from a friend, he had been very seriously ill. At the time this letter was written, he was at Genoa and was in the hands of a nurse and a physician, but was going to Berne, Switzerland, to be operated on for appendicitis by Dr. Kocher. The next heard was that he was dead. Dr. Buell had had attacks of appendicitis in Los Angeles and surgeons here had urged him to be operated upon, but he kept delaying it, and then thought he had cured himself by the starvation treatment. Dr. Buell had built a beautiful home in the suburbs of Los Angeles, and just as they were moving into it, his wife died suddenly, last December. They had no children. He was a graduate of a Homeopathic college, but was broad in his affiliations, and his friendships were as close in the regular school as in his own. He was an able surgeon, a charming companion and an ideal citizen. The last letter from Dr. Buell was to a friend in Los Angeles and contained the following sad note: "I have had little but one series of misfortunes after another since leaving home, and now hope I am reaching the end of the string, one way or the other. I left Venice twelve days ago, fairly well, for a trip down to Monte Carlo, Nice, Milan, Northern Lakes, Como, etc., then Switzerland, and to Munich in about three weeks. Was taken violently ill the night I reached here, typhlitis and appendicitis. Have had good doctor, good surgeon and good nurses, and have passed through the acute stage, but probably cannot get well without opera-



tion. They advise me to go to Dr. Kocher at Berne, Switzerland, and if I am able to stand the fourteen-hour journey I shall leave here next Friday evening—the 15th—reaching Berne Saturday morning. It will then be up to Dr. Kocher, and I expect to come out all right, but you cannot always tell. You know what I want there, and Koepfli, to whom I have written at Munich to join me at Berne, will attend to everything necessary here. Will cable you results and would like you to let my many friends know, perhaps best through the press. I am sure you must have written me, but I have received no word from you since May 5, at Hong Kong. If you write me at Munich I should receive it when I go there from Berne after my operation.”

#### PASSING THE CATHETER.

Pick out a medium sized Jaques catheter; pass it down until it strikes the obstruction and refuses to move another inch; fill a large aspirating syringe, or any piston syringe holding two or three ounces, with hot water, couple the syringe to the end of the catheter, and gently force in the fluid, at the same time rotating the catheter; the pressure of the water forms a bladder-like sac at the end of the catheter, which forces the glands back, and by the gentle rotation the catheter rides over the gland, and the trick is done.

#### TO POLISH SURGICAL INSTRUMENTS.

A very efficient soap for polishing instruments may be prepared by incorporating two parts of powdered emery and one part of magnesium carbonate with ten parts of tallow soap softened with a very small quantity of water. A good polish in powdered form is obtained by mixing four parts of powdered chalk, four parts of magnesium carbonate and seven parts of red oxide of iron.

#### MEDICAL ARITHMETIC.

The table I use (and it is nearer to the fraction than any I have ever seen) is five grains to the ounce for a one per cent. solution. That gives one grain or minim of the chemical to ninety-six minims of the vehicle. Here is the table:

Grains	2½	to 1	℥ =	½	% solution.
Grains	5	to 1	℥ =	1	% solution.
Grains	10	to 1	℥ =	2	% solution.
Grains	15	to 1	℥ =	3	% solution.
Grains	20	to 1	℥ =	4	% solution.
Grains	30	to 1	℥ =	6	% solution.
Grains	40	to 1	℥ =	8	% solution.
Grains	50	to 1	℥ =	10	% solution.
Grains	75	to 1	℥ =	15	% solution.
Grains	100	to 1	℥ =	20	% solution.

Accurately, there are ninety-six grains to the ounce in a twenty per cent. solution, so you see the above is very close to being absolutely correct.

#### BALLOONACY.

There's always room at the top—for a balloon.

A balloon in the air is worth two in the sea.

The difference between a balloon and an automobile is that a balloon may pass over a million people at full speed and not hurt one of them.

A chauffeur may be naughty, but a balloon driver is aeronauty.

It's "all up" with a balloon when it comes down, BANG.

One may have high times in a balloon, but everybody in sight knows about it.

However much one may be displeased with a balloon, he doesn't want to "take a fall out of it."

One kind of airships are all Wright. The aeroplane ought to be on the level, but sometimes it is not.

When an airship gets the drop on you, it's time to land.—*W. J. Lampton in August Lippincott's.*

## BOOK REVIEWS

MANUAL OF TROPICAL MEDICINE. By Aldo Castellani, M.D. (Florence); Privat-Docent (Naples), Director of the Clinique for Tropical Diseases, Ceylon; Professor of Tropical Medicine and Lecturer on Dermatology, Ceylon Medical College; Member of the Royal Society's Commission on Sleeping Sickness in Uganda, 1902-1903, and Albert J. Chalmers, M.D. (Vic. and Liv.); F. R. C. S. (Eng.); D. P. H. (Cam.), Registrar and Lecturer on Pathology and Animal Parasitology, Ceylon Medical College; Pathologist the General Hospital, Colombo; Holtfellow, University College, Liverpool, 1890; Medical Officer Gold Coast Colony, 1897-1901. University Series. Price, \$6.00. New York: Wm. Wood & Co., 1910. The work is dedicated to "Sir Patrick Manson, K.C. M.G., M.D., L.L.D., F.R.C.P., F.R.S., the Founder of Tropical Medicine."

This a volume of 1150 pages and makes a very complete treatise on this subject which has become of such transcendent interest to the profession of America and Great Britain during the last few years. In dedicating the work to Sir Patrick, the authors have paid a graceful compliment to one to whom the profession owes much. The history of tropical medicine, taking up especially Indian and Egyptian medicine, occupies seventeen pages. In the course of this chapter, the authors say: "Notwithstanding all the rapid advance of knowledge in tropical diseases, there are many as yet unknown, or little known diseases. The causation of black-water fever, of yellow fever, of dengue, of sprue, of beri-beri, of ain-hun, of goundou, and many others, still requires explanation. The method of infection of leprosy is still unknown, and it is quite likely that certain fevers are as yet undifferentiated."

In speaking of tropical climates, it is stated that warm climates, as referred to in this work, extend from the equator to a mean annual isotherm of 68°F. The tropical zone is limited to the north and the south by an isotherm which represents a mean temperature for the coldest month in the year of 68°F., or 20°C. The question of winds and storms—cyclonic and otherwise—

humidity and rainfall, and their effects on health, are all gone into carefully, also the production and regulation of heat in man. In the use of the thermometer, Crombie is quoted as saying that an accurate recording of temperature in India requires that the thermometer be left ten minutes in the well closed and dry axilla, eight minutes in the mouth and three or four minutes in the rectum. This instruction, if carried out in all climates, would be greatly to the advantage of patients and physicians. The so-called

#### "ONE-MINUTE THERMOMETERS"

have given practitioners a vast amount of faulty data. No matter whether it is a one-minute thermometer or not, if an accurate record is desired, the thermometer should be left in the mouth at least five minutes.

The prevention of diseases by suitable headgear, proper clothing and a special class of buildings, is also given particular attention. The authors say: "Buildings should never be painted white or blue, but should be of a dark red color. The amount of light admitted to a room should be restricted, and care should be taken that reflection from the ground into the room does not take place."

Under the title of "tropical intoxications," poisons used criminally against men are described. They consist of inorganic and organic poisons, and it is stated that criminal poisoning is three or four times as frequent in India as in England, and nineteen times more prevalent in Calcutta than in England. The chapter on homicidal, suicidal, arrow and cattle poisoning is of peculiar interest. Venomous animals and reptilia form other chapters of value, and the people of the West will especially read the chapter on

## SNAKE POISONING.

It says: "The snake poison usually enters the arm or leg, and in such cases, the old treatment advised by Celsus two thousand years ago should be carried out, by applying a tight ligature around the affected limb on the proximo side of the wound. This ligature must be kept on for at least twenty of thirty minutes. The next step is to cut, not merely around the apertures of the fangs, but also to extend the incision along the course of the veins and lymphatics. The next intention is, the wound and incision should be thoroughly soaked in permanganate of potash solution (3 per cent.) The after treatment should be boric fomentations, frequently repeated.

Rat bite disease, which is attributed to the bite of a rat which is supposed to be diseased, is mentioned in Japanese medical books from the most ancient times. Recently, numerous cases have been reported. Then come chapters on the biological causes of disease, referring to and treating thoroughly of animal parasites and vegetable parasites. The diseases of the tropics cover fevers, in which we find malaria, black-water fever, rocky mountain fever, dangua, pelagua and various other diseases. Under general diseases, we have filariases, leprosy, epidemic dropsy, beri-beri and pellagua. Under systemic diseases we have the diarrhoeas, cholera, dysenteries, diseases of the liver and pancreas, diseases of the urinary organs, diseases of the nervous system and of the skin. There is also an excellent index.

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MEDICAL ELECTRICITY AND RONTGEN RAYS. By Sinclair Tousey, A.M., M.D., Consulting Surgeon to St. Bartholomew's Clinic, New York City. Octavo of 1116 pages, with 750 illustrations, 18 in colors. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$7.00 net; Half Morocco, \$8.50 net.

Without numbering the chapters, the subject matter of this work is brought

under eighteen headings. The first 261 pages are devoted to a study of electricity, the force. "General Considerations," opens the discussion, then "Static Electricity" is taken up and various kinds of apparatus from the earlier machines to our present ones are illustrated and their principles explained. Moisture, the *bete noir* of the influence machine, can be overcome in several ways. Calcium chloride is a powerful absorbent of moisture. "A generous quantity of this should be used. In a case 2x3x4 feet, and containing a six-plate static machine, two pounds of dry calcium chloride should be placed in deep open vessels." "In an emergency, for a single session, a freezing mixture of salt and ice in deep glasses or earthen vessels, placed inside the case, will cause the moisture to condense upon the vessels, and free the machine from moisture."

Reviewing "Dynamic Electricity" is like reading a Thompson-Huston treatise upon the subject. Doctor Tousey's A.M. must represent an exhaustive study of electrical energy and power before his entrance into the profession of medicine. Under "Physiologic Effects of Electricity" the author notes that cardiac paralysis results from shock by low voltage currents, and respiratory paralysis from high voltage currents, the latter being far more amenable to treatment, it frequently being possible to restore by artificial respiration, persons apparently dead. Very high voltages, 5000, 10,000, or 60,000, often are instantly fatal, "as hemorrhages in the substances of the central nervous system may cause irreparable paralysis of respiration and other functions."

Mercuric cataphoresis, by Massey's method, as applied for cancer is described. Sharp pieces of zinc amalgamated with mercury are thrust into the tumor and a heavy current, 100 ma., applied. Coagulation necrosis follows



for half an inch around each point of the positive pole. The author says, "There is no question as to whether the destructive effect is at all due to transportation of mercury into the tissues, or whether it is due altogether to the action of the electric current."

Tousey makes little of cataphoresis, stating his views in a quotation of Bresard. "He does not believe that the medicinal substance is carried beyond the follicles in the skin, and thinks that whatever effect is obtained in joint cases is due to the electric current and not to substances used to moisten the electrodes." Mention is made of a case of Herpes Zoster cured by two applications of galvanic current. The positive electrode placed over the spine and the negative covering all the vesicles, with 6 to 8 ma. current for 30 minutes did the work. Tousey treats pulmonary tuberculosis with the X-Ray, mercury vapor, electric light and high frequency current. This combination in the one case cited seemed to be favorable, but the results are far from conclusive. "The Cooper Hewitt light (mercury vapor lamp) may also be used to watch for the earliest evidence of Rontgen dermatitis." Syphilitic eruption is visible with this light several days before it can ordinarily be seen.

X-Ray work can be done with greater accuracy and far more satisfaction, by using the improved Villard valve, which does away with inverse current trouble, and an oscilloscope to determine the equality of alternations, when using this current. Descriptions of these two pieces of apparatus with illustrations of their use are given on pages 630-631 and 2. Skiagraphs of suppurative involvement of the accessory sinuses of the nose are given, with illustrations of the normal conditions. The author's technique in these difficult operations is clearly set forth. A screen of ordinary sole leather

is used by Tousey to absorb the soft rays that cause most X-Ray irritation. Skiagraphs of the arterial system, pages 943 to 949, are beautiful, and will add much to the accuracy of our anatomic knowledge.

A feature of this work that will appeal to all practitioners, whether especially interested or not in electro—and photo—therapy, is Tousey's frank avowal of limitations, as he sees them. A book heralding only the successes loses half its value to one seeking information. More might be written of the excellent features of this work, but space forbids.

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MODERN SURGERY: General and Operative: By J. Chalmers DaCosta, M.D., Professor of Surgery and Clinical Surgery in the Jefferson Medical College Philadelphia. Sixth Edition, Greatly Enlarged. Octavo of 1502 pages, with 966 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$5.50 net; Half Morocco, \$7.00 net. W. B. Saunders Company, Philadelphia and London.

When a few years ago DaCosta presented this work to the profession as a manual, he said it was his aim to present the subject "in clear terms and in concise form as to fundamental principles, the chief operations and the accepted methods of modern surgery."

The work was to stand between the complete but cumbrous text-book and the incomplete but concentrated compend. Obsolete and unessential methods were excluded in favor of the living and the essential. There was no attempt to exploit fanciful theories nor to defend unprovable hypotheses, but rather the effort has been to present the subject in a form useful alike to the student and to the busy practitioner.

The opening chapter is devoted to Bacteriology, "because the author profoundly believes that without some knowledge of the vital principles of this branch of science the vast importance of its truths will be ill appreciated and there will be inevitable

failure in the application of aseptic and antiseptic methods."

Now that the sixth edition of the book has grown larger, the author acknowledges that the work of revision has proven an arduous task. "It has been found most difficult to select from the large number of books and reports and the great mass of periodic literature those matters which appear to be genuine advances. It has often been a matter of embarrassing uncertainty to choose what should go into the new edition, and what should be removed from the text of the former edition. New things are not always true things, and even long accepted views may happen to be wrong. In investigating alleged discoveries and advances, I have endeavored to bear in mind the thought of Victor Hugo 'that new things may be either constellations of profundity or stars made by duck's feet in the soft mud of the pond.' Further, in trying to estimate the worth of recent views, one must always be on the lookout for what Junius calls 'false facts. Many procedures are still on trial and their real value has not as yet been determined. The real test of all views is experience, and ample experience can come only after considerable time.

"In spite of these critical deductions, a reading of the literature of the last three years impresses one with the reality and magnificence of the progress that is being made in surgery. Almost every section of this book has been altered or added to for the sixth edition. Particular mention has been made of arteriorrhaphy, a procedure which is founded on the investigations of Murphy, Carrel, and Matas; Crile's arteriovenous anastomosis for affecting transfusion of blood; Brewer's tubes for transfusion; the use of Halstead's aluminum bands in the treatment of aneurism; the operative treatment of recent fractures; Horsley's operation for chronic spinal meningitis; the use

of positive and negative air pressure in intrathoracic surgery; Murphy's method of treating acute peritonitis; Cushing's operation of decompression for brain tumors; Bier's intravenous local anesthesia; the parathyroid glandules; the intraglandular extirpation of goiter, which is favored by Halsted and the Mayos; the Lorenz treatment of hip disease by weight bearing and fixation; cystoscopy and catheterization of the ureters; gunshot wounds in war; Bier's treatment of inflammation; Wright's views on inflammation; Rosenberger's methods of diagnosing tuberculosis by finding the bacilli in the blood; immunity with a sketch of antibodies, of opsonins; and of phagocytosis; bacterial vaccines; untoward effects of sera; tuberculin in diagnosis; fat embolism; erysipeloid; human glands; Wasserman's reaction for syphilis; the serum diagnosis of cancer; tumors in general; syphilis; acute dilatation of the stomach, mesenteric cysts, congenital idiopathic dilation of the colon, feratoids and dermoids of the sacrococcal region; gonorrhea; ankylosis; radium, electrical injuries, and the X-Rays."

"Unfortunately the book grows larger with each edition," says the author," and I view this growth with regret and apprehension, feeling somewhat like the elder Weller when he saw the woman drink nine and a half breakfast cups of tea and noticed her 'swellin wisely' before his 'wery eyes.'"

On page 345 under the Causes of Tumors, in speaking of Tillman's discussion on the subject of cancer in the Congress of 1895 he says, "his conclusions seem most sound and scientific. He says there is no evidence of a bacterial origin of cancer. The parasitic origin has not been proved, and protozoa have not certainly been found. Cancer can be transferred from one part to another of the same individual, or from one individual to an-

other of the same species, but never to one of a different species. It is possible that cancer can spread by contagion; this is very rare, but can happen. Because it is sometimes possible to transfer cancer, this does not prove that the disease is parasitic or infectious; it simply shows that tissue has been successfully transplanted."

On page 1051 under the Toilet of the Peritoneum, he says, "Following a clean laparotomy, when but little blood has flowed into the cavity, flushing is not required; if much blood has flowed or septic matter has passed into the peritoneal cavity, after removing the sponge from Douglas's pouch flush the belly thoroughly with hot normal salt solution (many will object to this statement), empty out most of the fluid, but let a pint or more remain in the abdomen. In flushing the abdomen bear in mind Monk's observations as to the mesentery. It is a sort of shelf. If we follow down the left side of it with the finger the finger must enter the left iliac fossa; if we follow down the right side of it the finger must enter the right iliac fossa. Hence in order to flush the right cavity carry the nozzle down the right side of the mesentery to its root, and in order to flush the left fossa carry it down the left side of the mesentery to the root. The retention of the saline fluid in the belly minimizes shock. It is absorbed with great rapidity after the operation if the patient is placed with his head lower than his feet, because in this position the saline fluid gravitates to the diaphragmatic region, where absorption is very active; in fact, in an hour the peritoneal cavity can absorb from 3 to 8 per cent. of the body weight."

Under Closure of the Peritoneum on page 1052, "after sewing up the peritoneum with continuous suture of catgut, and the aponeurotic layers with the same material or with chromicized

catgut, and closing the skin with either interrupted sutures of silkworm gut or a subcuticular stitch of catgut, silkworm gut, or silver wire. A layer suture makes a beautifully neat approximation, and is frequently quite satisfactory; but I have become persuaded that the dead space, so often left unobliterated when this method of suturing is employed, a space in which blood and inflammatory exudate may gather, is a danger to the future integrity of the wound. The combination of a dead space with catgut, a material that is always somewhat uncertain, is an unfortunate one from the surgical point of view. Recently I have returned to the use of the through and through suture in many cases, applied according to the method of Dr. Price."

He says, if a two-inch incision has been closed without drainage and primary union has taken place, the patient can usually get out of bed in seven or eight days. A large incision offers greater danger of subsequent hernia, and the patient should be kept in bed for two or three weeks. If the wound has been kept open for drainage, a prolonged retention in bed may be necessary. "I get patients up at an earlier period than used to be my custom, but I do not get them up as do Kummell and others in from one to three days. To get them up reasonably early lessens constipation, favors an early return of appetite and strength, and diminishes the risk of postoperative thrombosis and embolism and of bronchitis. We must bear in mind that if there is myocardial degeneration very early getting up may prove disastrous, or even fatal, and that in septic diseases there is often myocardial degeneration."

The book is one of the most satisfactory and useful single volumes on surgery of which the reviewer knows.



**SURGICAL AFTER-TREATMENT.** By L. R. G. Crandon, A.M., M.D. Assistant in Surgery at Harvard Medical School. Octavo of 803 pages, with 265 original illustrations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$6.00 net; Half Morocco, \$7.50 net. W. B. Saunders Company, Philadelphia and London.

The author modestly states that, "These suggestions for After-treatment of Surgical Cases are written for two classes of practitioners: house surgeons in hospitals and general practitioners in communities which are not surgical centers." Others may with profit utilize this book as a review of their own methods, as no technique is perfect, and the soundness of the advice set forth makes it interesting.

The seven hundred and seventy pages are divided into an unusual number of chapters. One-half of the book is devoted to after-treatment in general, the other to care required in special operative conditions. Operative procedures are given in a number of instances but they serve to give a better understanding of the after care required.

The most simple matters receive thoughtful consideration. On vomiting after anesthesia, Crandon states, "By far the simplest procedure is to give the patient, three or four hours after operation, or as soon as he asks for it a glassful of hot water (a half pint). This is, in short, an effectual form of gastric lavage; the stomach, which has been ineffectually retching in an effort to bring up a small quantity of thick, slimy, irritating material, now successfully exerts itself in getting rid of a larger bulk of more dilute fluid. This procedure is contra-indicated only in certain operations involving the stomach and duodenum."

Eisendrath's apparatus for continuous rectal saline installation is described and illustrated. "It is made of tin, and consists of a double-walled water-jacket, mounted on legs eight inches in height. The space between the jacket is conical, and just large enough

to hold a glass percolater with a capacity of one quart." A bunsen burner or alcohol lamp is used to heat the water in the tin container. A constant temperature of 120°F. in the percolater insures temperature of 95 to 100°F. as the saline solution enters the rectum.

In Chapter V, Pulse, Temperature, and Respiration, is an admonition that we do not remember of seeing in any other work. "A surgeon may argue that a patient cannot be badly off when his pulse and temperature are both normal, but a normal pulse and temperature after a celiotomy, combined with an increased respiratory rate, is very likely to mean peritonitis."

**THE DISEASES OF THE NOSE, MOUTH, PHARYNX AND LARYNX.** By Dr. Alfred Bruck (Berlin) A textbook for students and practitioners of medicine. Edited and translated by F. W. Forbes Ross, M. D., Edin., F. R. C. S. England. Late civil surgeon his Britannic Majesty's Guards Hospital, London; Assistant North London Hospital for consumption and diseases and of the chest; clinical assistant Metropolitan Hospital for the diseases of the nose and throat, etc. Assisted by Friedrich Gans, M. D. Illustrated by 217 figures and diagrams in the text, many of which are in colors. New York Rebman Company, 1123 Broadway.

This excellent volume is intended to meet the requirements of men in general practice. Discussion of the theoretical has been omitted and emphasis laid on essential points. The methods of examination are well illustrated by diagrams, many of them schematic. To better portray the operative technique, instruments are shown very often in the diagrams *in situ*. An especially strong feature of the book is the prevailing absence of any unnecessary padding out in order to procure a lengthy and imposing work. The book itself has been divided into four parts: Part 1, dealing with diseases of the Nose, and its accessory cavities; Part 2, with diseases of the Mouth; Part 3, with diseases of the Pharynx, and Part 4, with the Larynx. The printing and binding are excellent, the many illustrations unusually good and

of more than usual worth, and the book altogether a very desirable addition to this particular specialty.

**DISEASES OF THE EYE.** By George E. deSchweinitz, M.D., Professor of Ophthalmology in the University of Pennsylvania. Sixth Revised Edition. Octavo of 945 pages, 351 text illustrations, and 7 lithographic plates. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$5.00 net; Half Morocco, \$6.50 net. W. B. Saunders Company, Philadelphia and London.

The sixth edition of this book has been carefully revised and has also had much new material incorporated. Special paragraphs on the following subjects appear for the first time: The Use of the Cross Cylinder or Astigmatic Lens; Obstetric Injuries to the Cornea; Atoxyl Amblyopia; Ocular Complications of Nasal Accessory Sinal Disease; Intermittent Exophthalmos; Galvano-puncture for Ectropion and Entropion; Establishment of a Filtering Cixatrix; Smith's Operation for the Removement of Cataract in the Capsule. Many portions of the book have been entirely rewritten to conform to our added knowledge, for instance, nystagmus. As a result, the book has increased somewhat in size, still maintaining its enviable reputation as one of the best text-books for students of ophthalmology which has been published.

**THE PRACTICAL MEDICINE SERIES,** comprising 10 Vols. on the Year's Progress in Medicine and Surgery, under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology. Chicago Post-Graduate Medical School, and Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Vol. III. The Eye, Ear, Nose and Throat, edited by Casey A. Wood, C.M., M.D., D.O.L.; Albert H. Andrews, M.D., and Gustavus P. Head, M.D. Series 1910 Chicago: The Year Book Publishers, 40 Dearborn Street. Price, \$1.50 this volume. Price, Series of 10 Vols., \$10.00.

This series is published primarily for the general practitioner; at the same time, it is arranged in several volumes so that anyone who is interested in a special subject may buy only the part which he desires. The volume on the

Eye, Ear, Nose and Throat has always been decidedly satisfactory, containing a synopsis of all that is new and practical which has been discovered and published in the previous year, in such form as to be a useful and helpful guide in reading up on any subject.

**PHYSIOLOGY AND PATHOLOGY OF THE SEMI-CIRCULAR CANALS.** By Adolphus E. Ibershoff, M.D., and a foreword by Royal S. Copeland, A.M., M.D. Being an Excerpt of the Clinical Studies of Dr. Robert Barany with notes and addenda gathered from the Vienna Clinics. Cloth, 64 pages, \$1.00 net. Paul S. Hoeber, 69 East 59th Street, New York. 1910.

This small volume of 64 pages probably gives the most clear-cut expression of the knowledge of the physiology of the semi-circular canals that we have at the present time, also an excellent exposition of the teaching of the Vienna school.

**DISEASES OF THE STOMACH AND INTESTINES.** By Robert Coleman Kemp, M.D., Professor of Gastro-Intestinal Diseases, New York School of Clinical Medicine. Octavo of 766 pages, with 279 illustrations. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$6.00 net; half Morocco, \$7.50 net. For sale by Fowler Brothers, 543 S. Broadway.

This volume is intended to submit to the general practitioner simple and practical methods in the diagnosis and treatment of diseases of the stomach and intestines.

In looking over the subject matter, we are somewhat disappointed in this, as the author has made a book differing but little, excepting that most of the later physiological knowledge and experience gained from surgery of the abdomen is included, from the older monographs on the subject, including methods, instances of which will be indicated later, that are of no practical value and, therefore, confusing to one inexperienced in diseases of the alimentary system.

From the standpoint of the specialist, however, the work is admirable, giving in very clear style not only the varying views found in the literature,

but the opinions of the author as well. For the sake of completeness, we wish that Diseases of the Esophagus had been included and we note that the author has omitted the discussion of Chronic Cardiaspasm—an important and by no means infrequent clinical entity.

Among subjects that could be better left out of the book are radium transillumination of stomach; gastrodia-phany; and salol test for motility; gastrofaradization, and static electricity.

Chapter XVII on Diet in Health and in Diseases of the Stomach consists of 16 pages, the best features of which are tables giving the caloric value of common foods, in amounts usually eaten by patients.

Orthopedic therapeutics for ptosis of the abdominal viscera, is as we would expect from the pen of Dr. Kemp, given deserved emphasis and importance throughout the work. It is well recognized that the majority of dys-pepsias are of a functional nature, and that in these, displacement of the abdominal organs is an important etiological factor. On this account alone the book should be in the hands of every general practitioner, for the reason that the subject is handled in a more practical manner than can be found in any other work at the present time.

The discussion of the individual diseases of the stomach and intestines is on the whole excellent.

In the symptomatology of acute ulcer of the stomach, we do not believe, however, that pain occurs "generally a few minutes after eating, although sometimes a half to one hour later." If this statement were generally accepted, most cases of ulcer would go unrecognized, for it is the consensus of experience that pain in ulcer typically occurs from one to three hours after eating; food ease for this period being perhaps the most constant symptom of the disease. Again, the author states that in all

doubtful cases, gastric analysis and examination of occult blood in the stomach and stool should be carried out. Gastric analysis is practically of no value in ulcer, for as the author himself states, subacidity, normal acidity or hyperacidity may exist. Clinical experience has taught frequently enough that the positive occult blood must be interpreted with the greatest reserve. It is furthermore doubtful if the stomach tube should be introduced into an ulcerated stomach, especially by one not expert in its use.

On page 285, nervous gastralgia is discussed. The diagnosis of nervous gastralgia is productive of many diagnostic sins. The phrase should become obsolete.

The chapters dealing with disturbances of the motor functions of the stomach, atony, and acute and chronic dilatation of the stomach, are entirely adequate. The section on acute dilatation of the stomach particularly, is the best we have ever seen, and the same might be said of the way in which Dr. Kemp discusses gastroptosis and its allied conditions, although we cannot agree with the author's advice of gastroenterostomy in atonic dilatation of the stomach.

The chapter devoted to dyspeptic asthma and syphilis of the stomach is given deserving space and attention.

Part III, devoted to Diseases of the Intestines, represents very well the present conception of the various diseases of the intestinal tube.

Among the things not ordinarily discussed in text-books on this subject, are included indicanuria, saccha robutyric putrefaction and visceral arteriosclerosis.

In the discussion of membranaceous enteritis, the author advances ptosis as being the chief etiological factor of the diseases and bases his treatment accordingly—an unusual conception of the etiology of this disease.



The index of the book is very complete and well arranged.

Dr. Kemp's work will undoubtedly meet with merited favor.

**PULMONARY TUBERCULOSIS AND ITS COMPLICATIONS.** By Sherman G. Bonney, M. D. Professor of Medicine, Denver and Gross College of Medicine, Denver. Octavo of 955 pages, with 243 original illustrations, including 31 in colors and 73 X-Ray photographs. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$7.00 net; Half Morocco, \$8.50 net.

Bonney's work on Tuberculosis was reviewed in these pages when the first edition appeared, attention being called at that time to its many desirable features. In this new second edition, which has been called for in so short a time, Dr. Bonney has presented a complete revision and the important contributions made at the last meeting of the International Congress on Tuberculosis held at Washington are reviewed as fully as practicable. Five new chapters, 40 illustrations, as well as eleven insert plates, nine of them colored, have been added to this new edition. Dr. Bonney is certainly to be congratulated on getting out such a splendid book and it must be gratifying to him to realize that not only has his original idea of making it a good all around book for general practitioners been achieved, but that his volume is also one of which specialists in tuberculosis have a very high opinion. Those who are contemplating the pur-

chase of a book on Tuberculosis will make no mistake in buying the 1910 edition of Bonney's work.

**THE EXPECTATION OF LIFE OF THE CONSUMPTIVE AFTER SANATORIUM TREATMENT.** By Noel Dean Bardswell, M.D., M. R. C. P., F. R. S. (Ed.) Medical Superintendent, King Edward VII Sanatorium. Edinburgh, Glasgow and London. Henry Frowde and Hodder & Stoughton.

Bardswell, who is the Medical Superintendent of the King Edward the VII Sanatorium for Consumptives has written a valuable monograph in this book. It deals especially with the value of sanatorium treatment. Those who are interested in the subject of the great White Plague should not fail to have this volume.

**THE HUMAN BODY AND HEALTH.** By Alvin Davison, M. S., A. M., Ph D., Professor of Biology in Lafayette College. An intermediate text-book of essential Physiology, Applied Hygiene and practical Sanitation for schools. Intermediate. New York, Cincinnati and Chicago American Company.

This is an intermediate text-book of essential physiology, applied hygiene and practical sanitation, and is another evidence of the new interest which is being taken in the education of the rising generation and of familiarizing them with those fundamental laws bearing on health and sanitation with which all should be familiar. The diagrams and illustrations are very good. The type is clear and the general arrangement of the subject-matter logical.

## MISCELLANEOUS—THERAPEUTICAL HINTS

### A TYPHOID CARRIER.

The Chicago Department of Health has discovered a remarkable typhoid carrier. The person had not had typhoid fever for years, but had an enormous number of typhoid bacilli in the urine and feces. The blood also gave a slight Widal reaction. This is another argument in favor of the treatment of this disease by intestinal antiseptics.

### TO DISGUISE QUININE.

Dr. Borde advises, in administering quinine to children, to rub it up with olive oil; for example, 1 gm. of the remedy with 8 gms. of olive oil. This may be taken in milk, without in the least noticing the bitter taste. Such a mixture he has found of service in giving the drug to children. Twenty drops correspond to 5 cgms. of quinine.

### ECONOMY IN HYPODERMIC NEEDLES.

Thousands of hypodermic-syringe needles are thrown away each year as useless by members of the profession, which could, with a slight amount of trouble, be restored to their original state. The channel of the needle becomes occluded, owing to the deposition of material derived from the injected fluid. This precipitate is readily dissolved and removed by boiling the needles for a period of ten minutes in a solution of sodium carbonate, which not only cleanses the needle internally, but restores the brightness of the external surface as well.

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### THE CLOUDING OF MOUTH MIRRORS.

Dr. Paul F. Sondern describes in the *New York Medical Journal* a method of preventing the clouding of laryngoscopes which can also be used in the case of dental mouth mirrors. The method is thus described: "By means of the finger, slightly moistened, apply a film of soap of any brand or kind to the mirror; then rub this off with a clean, dry cloth; the mirror will be as bright and clear as ever; breathing on it will not affect its clearness." The method is certainly a clean one, and the mirrors do not suffer from the operation.

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### A PRACTICAL HINT.

When you succeed in passing the catheter into the bladder in cases of considerable retention, do not empty it entirely or too suddenly, as it may give rise to hemorrhage, which is sometimes very profuse, or to severe cystitis, or even urinary suppression and death. It is well to partially plug the lumen of the catheter so as to allow the urine to dribble out.

### THE URINARY SOLIDS.

In order to determine the quantity of solids passed in any urine, bear in mind that in health the patient should pass about 6 grains for every pound of the weight of his body. If he weighs 150 pounds he should pass about 900 grains. If the last two figures of the specific gravity be multiplied by the number of ounces passed in 24 hours, the result represents a quantity of solids equal to that many grains. To illustrate: If the specific gravity of a specimen is 1020 and 45 ounces are passed in 24 hours, the 20 of the sp. gr. multiplied by the 45 equals 900 grains. This rule can be applied to all quantities and specific gravities.

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### NEW METHOD FOR REDUCING HERNIA.

Stafford, in *American Medico-Surgical Bulletin*, advises continuous pressure for reducing a hernia. An ordinary rubber bandage, two and one-half inches wide and three yards long, is wound about the scrotum and penis, commencing below the center and drawing tighter at the lowest part until all the parts are covered. This is less painful and more effective than taxis. The same method is employed for prolapsed rectum.

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### TIME FOR GIVING MEDICINE.

"Three times a day" usually means at eleven, three and seven.

"Four times a day" usually means at ten, two and six and once during the night.

"Every six hours" usually means at twelve and six, night and day.

"Every four hours" usually means at eleven, three and seven, both night and day.

"Every three hours" usually means at three, six, nine and twelve, night and day.

# DRUGS IN TUBERCULOSIS.

The reaction in favor of drugs seems to have extended even to Germany. Senator has recently published a valuable article on Symptomatic Treatment of Pulmonary Tuberculosis, in which he makes use of "drugs." In hemoptysis he thinks morphine may be useful, also tranquilizing the patient, usually nervous and excited. Digitalis may prove useful if the heart is acting tumultuously. Astringents he does not believe in, excepting possibly lead acetate. Ergot, hydrastis and similar drugs are liable to do harm if the bleeding vessel is diseased.

## QUESTIONS CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS, SAN FRANCISCO, AUGUST 2, 1910.

### HYGIENE

Answer 10 questions only.

1. What deleterious gases accumulate in improperly ventilated rooms?
2. What diseases may be propagated by drinking water? How may the impurities in water be detected?
3. Name four methods used in communities for the disposal of sewage and describe one method.
4. Outline a rational method by which the condition of milk supplied to a community might be materially improved.
5. Name four diseases which may be transmitted by milk.
6. Name four diseases that may be transmitted by the eating of diseased meat or fish?
7. What is the germ theory of disease? What laws were made to prove this theory?
8. What is an endemic disease? An epidemic disease? A miasmatic? A sporadic disease?
9. What are deodorants? Antiseptics? Germicides?
10. With what is ground coffee said to be frequently adulterated, and how may the adulterants be detected?
11. With what is vinegar sometimes adulterated, and how would you test for the adulterant?
12. How may the presence of lard in olive oil be detected?

### PATHOLOGY.

Answer eight of the written questions and identify four slides.

1. What blood changes are found in simple anaemia and describe the general or systemic effects if this condition is long continued?
2. Give the pathology of chorea.
3. Describe the macroscopic and microscopic characteristics which distin-

# SVAPNIA

The purified extract of opium, can be given in all cases where opium and its alkaloids are used, with the certainty that the usual bad after-effects of opium will not occur.

Svapnia has been used by the medical profession for the past twenty-five years. It conforms to a ten per cent. morphine strength, and contains the anodyne and soporific alkaloids, morphia, codeia and narceia, with the poisonous alkaloids eliminated.

Samples and literature sent upon application.

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SOLE AGENTS

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- guish malignant tumors or growths from those of a benign or non-malignant type.
4. Describe fully the effects and changes which result from an excess of secretion of the thyroid gland, and the effects and changes resulting from a deficiency of the thyroid secretion.
5. Describe the pathologic changes which take place as a result of chronic lead poisoning.
6. What organism is responsible for tropical or amoebic dysentery? What part of the intestinal tract is principally affected, and describe the changes resulting from the disease?
7. What are the principal causes of the ordinary summer diarrhoea or dysentery of children, and describe the condition of the intestinal tract usually present?
8. What conditions most frequently give rise to cerebral thrombus; what part of the brain is most likely to be affected, and what blood vessels most likely to be involved and why?
9. In imperfect closure or insufficiency of the mitral valve of the heart describe, in the order of their occurrence, the changes which take place in the heart and blood vessels and the resulting pathologic condition in other parts of the body.
10. Describe the condition of the lungs in cases of delayed resolution in



## Users of Catheters



Sounds or Specula find that "K-Y" Lubricating Jelly eliminates much of the discomfort usually attending instrumentation.

"K-Y"—the perfect lubricant—contains enough antiseptics to preserve it without irritating the membrane.

It is non-greasy, water-soluble, contains NO formaldehyde and is offered only in collapsible tubes, in order that little or much may be used without contaminating the remainder.

Sample on request.

**VAN HORN & SAWTELL**

NEW YORK and LONDON, ENG.

croupous or lobular pneumonia, and what is the usual ultimate result if not relieved.

11. Identify 2 slides.
12. Identify 2 slides.

### PHYSIOLOGY.

Answer Ten Questions Only.

1. Describe the phenomenon of muscular tone.
2. What is the chemical theory of fatigue?
3. What is the difference in the paralysis from injury to the spinal and the pyramidal neurons, respectively?
4. Name four sensory qualities of cutaneous nerves and tell how they are distributed in the skin.
5. What is the function of the eustachian tube?
6. What normal conditions produce a variation in the number of red blood corpuscles?
7. Mention four factors concerned in producing normal pressure and velocity of the blood.
8. What physical changes take place in respired air?
9. What conditions affect the action of ptyalin?
10. What is the general physiological importance of bile?
11. What is the physiological role of the adrenals?
12. Mention four ways by which the body loses its heat.

### BACTERIOLOGY.

Answer 10 Questions Only.

1. Explain how Diphtheria Antitoxin is made.
2. Give two methods of producing Immunity (Active).
3. What is a Bacterial Vaccine? How does it act?
4. Give positive test distinguishing Gonococci from other Cocci.
5. Describe in detail a method of staining Tubercle Bacilli.
6. Name five Pus-producing organisms.
7. Explain how Pus is produced by Germs.
8. Give two methods by which Bacillus Typhosus may be distinguished from Bacillus Coli Communis.
9. Show by drawing appearance under the Microscope of the following: Spirochaete Pallida, Bacillus Diphtheriae, Bacillus Pestis, Bacillus Tetani, Amoeba Coli.
10. Describe cause and usual method of entry of Epidemic Cerebro-Spinal Meningitis.
11. What is meant by Widal's Reaction? Describe two methods of doing it.
12. Describe the different methods by which Bacteria propagate. Give three.

### HISTOLOGY.

Answer 10 Questions Only.

1. Make a diagram of a transverse section of the spinal cord showing white and gray matter, position of motor and sensory roots of spinal nerves, central canal and principal motor cells.
2. Describe the muscular coats of the oesophagus.
3. Name the various forms of encapsulated sensory nerve-endings.
4. Describe minutely a medullated nerve fiber.
5. Describe the blood supply of a hepatic lobule.
6. Describe a renal Malpighian corpuscle. Make drawing.
7. Name two cells typical of the human cerebellum. Give short description of each and make drawings.
8. Tell how you would distinguish a transverse section of the transverse colon. Make diagram.
9. Name the following layers from which the following tissues and organs are formed:
  - (a) Enamel of the teeth.
  - (b) Finger-nails.
  - (c) Urinary bladder.
  - (d) Pancreas.
  - (e) Lymph nodules of the intestines.
10. What is meant by the following terms:
  - (a) Haversian canals.
  - (b) Osteoblasts.
  - (c) Osteoclasts.
  - (d) Lymphocytes.
  - (e) Eosinophiles.
11. Examination of slides.
12. Examination of slides.

### GENERAL DIAGNOSIS.

1. Give the cause of enlargement of the liver and describe atrophic cirrhosis of the liver in detail.
2. Differentiate tetanus from hydrophobia.
3. Name the different varieties of casts found in the urine and what is the significance of each.

# *Antiphlogistine*

Trade Mark

## Summer Time Suggestions

Don't put your Antiphlogistine can away in the summer. Besides now and then a case of pneumonia, there will be many other uses for it:

First—Bruises, sprains, baseball fingers, etc.

Second—Stings and bites of insects and reptiles.

Third—Sunburn.

Fourth—Poison Ivy, etc. (Dermatitis Venenata).

Fifth—Inflamed wounds from fireworks or firearms.

Sixth—Applied to the abdomen for the relief of colic in children and adults.

N. B. Be sure and take a can with you on your vacation, you may find it very useful when far from a drug store.

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**NEW YORK**

4. Give the symptoms of multiple sclerosis.
5. Give the symptoms and signs upon which you would diagnose a typhoid intestinal perforation.
6. Differentiate variola from varicella.
7. Describe an attack of acute appendicitis.
8. Describe on attack of acute pericarditis.
9. Give the causes and physical signs of ascites.
10. Differentiate iritis from glaucoma.
11. Give the relations of the abdominal aorta.  
Diagnose a fracture through the neck of the femur.
12. Describe the symptomatic development of a severe hemorrhage which presses upon the upper one-half of the fissure of Rolando following a blow upon the head.
8. Name the solids contained in normal blood. What proportions do the solids bear to the water in the blood?
9. Give the composition of starch, cane-sugar, grape-sugar and sugar of milk. Calculate the number of grains of carbon present in 1,000 grains of starch and cane-sugar respectively.
10. What is ozone? Is there any real evidence of its presence in the atmospheric air? What other substances give similar actions? Has its presence or absence any sanitary importance?
11. How would you recognize each of the following gases, chemically, when mixed with air: Carbon, monoxide, sulphur dioxide, sulphuretted hydrogen and hydrochloric acid?
12. How would you detect the presence of tartaric acid in lemon or lime-juice?

### ANATOMY

Answer ten questions only.

1. Name the visceral contents of the middle epigastric region.
2. Describe the changes that take place in the vascular system at birth.
3. Draw diagram showing relationship of stomach, spleen, pancreas and kidneys to the back.
4. Name the uses and supports of the arch of the foot.
5. Give the boundaries of the axilla and name its contents.
6. What are the anatomical conditions that minimize the effects of violence upon the skull?
7. Describe the course of the brachial artery. At what point may it be most easily compressed?
8. Give the relations of the prostate gland.
9. Make drawing of the shoulder sufficient to show the relation of the bony points.
10. Give the sensory and motor distribution of the median nerve.
11. What influence has sex on hernia? Name structures involved in femoral or inguinal hernia.
12. Name the chief varieties of joints and give their subdivisions with an example of each of the latter.

### CHEMISTRY

Answer 10 questions only.

1. Define alkaloid. Name five alkaloids commonly used in medicine.
2. How much of the following ingredients will be found in the urine of an adult who passes 1500 c. c. of normal urine daily? (a) urea, (b) chlorides, (c) phosphates.
3. What is a chemical symbol? Give the symbols of ten elements.
4. Give the composition of properties of, and tests for sulphuretted hydrogen and mention any chemical agencies by which its offensive odor may be removed.
5. How is formaldehyde prepared? In what forms is it used as a disinfectant?
6. What is the composition of butter? Describe a good method of determining the volatile fatty acids in a sample. How does this assist you in deciding the question of adulterations?
7. What are the respective alcoholic strength of beer, claret, sherry, gin, whiskey?

### GYNECOLOGY

Answer ten questions only.

1. What is the Menopause? Its physiological establishment. What are the especial dangers of this period?
2. What are the causes of hemorrhage in the non-pregnant uterus, other than menstruation?
3. Diagnosis of Uterine Fibroids. What pathological change often takes place? Prognosis?
4. Acute pelvic Peritonitis, causes and symptoms.
5. What is the differential diagnosis between Ascites and Ovarian cyst?
6. What is amenorrhoea, its causes and dangers?
7. What are the symptoms and management of imperforate hymen, with prolonged retention of secretion?
8. What is chronic endometritis, etiology and symptoms?
9. Early diagnosis of Cancer of the Uterus? What are operable cases? At what period in a woman's life is most liable to occur?
10. Urethral caruncle, diagnosis and symptoms.
11. Hematoma of the vulva, symptoms and diagnosis?
12. Specific vaginitis, symptoms, diagnosis, and complications.

### OBSTETRICS

Answer 10 questions only.

1. Between what points are the four measurements taken in external pelvimetry?
2. How is the pelvic inlet bounded?
3. What are the anomalies calling for cephalic version?
4. In mammary abscesses what is the usual source of infection and how can it be prevented?
5. Give the aetiology and diagnosis of phlegmacia alba dolens in puerperal state?
6. In breach presentations, occiput anterior, in what position would you place the body of the child in the application of forceps to aftercoming head?
7. Describe hyperemesis and its dangers.
8. Give the symptoms and diagnosis of puerperal septicemia?
9. What are the causes of secondary post-partum hemorrhage?
10. Describe the "Braxton-Hicks" method of manipulation in placenta previa?
11. What are the causes and dangers of precipitate labor?
12. Describe polyhydramnis and its dangers.







CALIFORNIA HOSPITAL SCHOOL FOR NURSES.  
CLASS OF 1910.

(SUPERINTENDENT OF NURSES IN CENTER.)

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Editor,  
DR. WALTER LINDLEY.

Associate Editors,  
DR. GEORGE H. KRESS and DR. JOHN W. FLINN.

Assistant Editors,  
DR. H. BERT. ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW  
and DR. F. M. POTTENGER.

## THE NATURE AND TREATMENT OF HYSTERIA.\*

BY CHARLES LEWIS ALLEN, M.D., LOS ANGELES, CAL.

"Hysteria is the child of sorrow of nervous pathology," writes Binswanger at the beginning of the most comprehensive treatise on this disease which has appeared in recent years, and as proof of this statement he asserts that though the subject has been studied for over two thousand years, we have not yet gained any exact knowledge as to its pathology. That it has any definite and unique pathological basis, the multiplicity and mobility of its symptoms would seem to negative. The idea that hysterical manifestations are due to disordered uterine functions has been persistent, and while disproved by the demonstration of hysteria in males, is not yet entirely eradicated, as witness the recent "sexual trauma hypothesis" of Freud. While a definite physical basis for hysteria is highly improbable, there is no doubt that its manifestations may be excited by physical causes. That it is not a definite disease, but rather a mode of reaction, and a pathological

one, is a conception which has forced itself upon all thoughtful students of the subject. Kronthal even denies that it is a nervous disease and defines it as "an easily changing morbid reaction of the cells constituting the individual." Now while its causes are undoubtedly manifold, and we cannot deny that they may be connected with any organ, we are impressed by the fact that whatever they are, they bear specially upon the nervous system and interfere with its working. In fact from what we know of nervous physiology, hysterical manifestations would seem to stand in some relation to disordered function of the brain centers, particularly those of the cortex. Further than this we are unable to go. But morbid reactivity is not found in all individuals, for while the typical hysteric reacts to influences of the most trivial character, the strongest shocks, physical or psychical, may fail in normal individuals to set up any unusual reaction. We are hence forced

\*Read before the Los Angeles County Medical Association. January 21, 1910.



to assume that in hysterical subjects there is some fault in the nervous arrangements whereby the abnormally excitable centres react in an unusual manner. This fault may be due to congenital defect and the transmission of such defect, through a greater or less number of generations, is only too well known to us, for while the particular form of disturbance present in the ascendants, does not always recur in the descendants, the latter may show by the presence of one or other neurosis, grave or mild, that they are suffering from insufficiency of the nervous system.

Originally normal nervous arrangements may be so disarranged by trauma, whether physical or mental, that the habit of abnormal reactivity is acquired. In probably a majority of the cases of traumatic hysteria, however, it is a matter of the accentuation of some already present, but unrecognized defect. In a similar way disease in the nervous system or elsewhere, may affect the nervous functions and lay the foundation for hysteria. The physical symptoms of hysteria having been worked out by Charcot and his pupils, to whom we owe a large part of our clinical knowledge of this disease, the mental state of hysterics next attracted attention and psychopathological studies have convinced all who have followed them, that hysteria is in the main psychical and must be considered from the point of view of the psychoses rather than from that of the neuroses. This being the case, the newer investigations have naturally had in view the attainment of an understanding of the psychopathology of the hysterical phenomena. How far we are from reaching this end will, however, be apparent to anyone who reviews even in the most cursory manner the newer literature of the subject. To analyze the views, even of those best qualified to express an opinion upon this matter,

would be a lengthy task and from a practical point of view of little value. Out of the confusion, however, there is traceable the idea that in hysteria, from some not well determined cause, or causes, there is an interference with the translation of sensory impressions into motor manifestations and with the orderly linking together, or association of ideas, a dissociation or disaggregation of the mental whole which makes up the normal personality, the ego. The cause of this dissociation is thought by some authors to be the influence of some morbid ideational complex which persists below the threshold of consciousness, so deep even, that the patient may be unconscious of its presence. Such an idea complex is connected generally with some long past experience, usually of a painful, or at least unpleasant, character and accompanied by a strong emotional tone. This experience, Freud thinks, is always connected with the sexual sphere—a reaffirmation in new form of the ancient ideas with regard to hysteria. For Janet, in hysteria, "It is an idea, a system of images and of movement which escapes from the control and even from the knowledge of the totality of systems constituting the personality." For him there is in hysteria always a "narrowing of the field of consciousness," or in other words, a "reduction in the number of psychological phenomena which can be simultaneously united in the same personal consciousness." Babinski, iconoclastically rejecting both the old ideas and the finer psychological explanations, considers most, if not all, the symptoms of hysteria as due to suggestion and removable by persuasion, using the word suggestion to imply the conveyance of a morbid or foolish idea, while by persuasion the idea to be conveyed is based upon reason and common sense. This author has rendered invaluable services in emphasizing the

points of differential diagnosis between organic disease and hysteria and in showing up the factitious character of many of the symptoms of this disease, which symptoms, he urges, will never develop if care is taken to prevent the conveyance of suggestion, especially during the medical examination. The practical deductions to be drawn from the whole discussion seem to be, first, that in each case in which the symptoms suggest hysteria, a thorough examination as to the presence of organic disease should be made, and second, since in hysteria the morbid manifestations depend chiefly upon disturbances in the psychical processes, it being, so far as we have yet made out, a typical functional disease, in its treatment, while not neglecting any possible physical disorders, we should attempt in every possible way to get back the psychical functions into normal working order. Now as to the first point, it is well known that hysterical symptoms occur in connection with organic disease, both in the nervous system and elsewhere, so that a thorough examination as to the presence of organic trouble and a careful weighing of the symptoms, should precede every diagnosis of hysteria. That there are certain signs of organic nervous disease, which cannot readily be simulated and which are not found in hysteria, has long been known, and this fact has been recently emphasized by Babinski. Such signs are, loss of knee jerk, pupillary rigidity to light, Kernig's sign, Babinski's toe phenomenon, etc.

The characteristics of the various hysterical paralyses, anesthetics, etc., are well exposed in the text-books and their onset after a shock or emotion is often decisive. If organic disease is present, treatment appropriate to it should, of course, be applied, though with such treatment psychotherapy usually can and should be combined. Many hysterics, apart from definite or-

ganic disease, will be found to be greatly reduced in flesh and strength and it is in this class of cases that the isolation, rest and superalimentation treatment of Weir Mitchell, which combines so well the physical and the psychical, has given such brilliant results. The guiding back toward the normal of the disturbed psychical functions requires, in the first place, some knowledge upon the part of the physician of general psychological principles, which, unfortunately, since psychology has not yet been generally recognized as a necessary part of the medical curriculum, has as a rule been attained only by those who have had more than the usual preparation for medicine, or by those who have later had the interest and the energy to pursue supplementary studies in this important subject. Also, as it is only of very recent years that what we may call a practical psychology has begun to be taught, a knowledge of it is not yet as widely diffused among the medical profession as we hope to see it. That the want is recognized is shown by the establishment in this country and elsewhere, of journals devoted especially to the medical applications of psychology, which through their articles from an increasing number of contributors, are doing much to spread and popularize the subject. Into even an outline of these principles the limits of this paper preclude entering. It will be remembered, however, that all our cerebral processes are largely conditioned by association and that for healthy functioning, the integrity of the association tracts connecting the different areas of the brain cortex is a *sine qua non*. Sensory impulses coming to the brain are translated into motor acts and this translation is perhaps accompanied by a certain feeling tone or emotion, but without the regulating influence of the higher centres, all would go amiss. Each conception is in

a normal mind checked and controlled by a contraconception. Now without orderly association this is not possible. It was stated above that practically all authors are agreed that in hysteria there is more or less of a dissociation of the cerebral functions leading to morbid manifestations, both mental and physical. As to the cause or manner of this dissociation we have no knowledge, though that it is due to organic lesion, the variability and shifting of the symptoms and the possibility of their sudden disappearance would seem to negative. Since then it is a typical functional disease characterized by disintegration, our therapeutic problem would seem to be, to effect a reintegration of the psychical processes into a harmoniously working whole. For those who regard the perversion of function as due entirely to suggestion, the matter is, as Bernheim puts it, one of "desuggestion," or, according to Babinski, one of persuasion. If the train of morbid processes is thought to be traceable back to an ideational complex, which, though forgotten by the patient, still lingers in his subconscious sphere and disarranges the orderly sequence of phenomena, this complex must first be discovered through psychoanalysis. For this, the study of the associations formed with a selected number of words after the method of Freud may be used, though this is a time-consuming process and readily capable of false interpretation.

The disturbing idea complex discovered, it must, by making the patient aware of it in its true perspective, be resynthesized in its proper sequence. It will be seen that in these cases psychotherapy consists in discovering, if possible, where the psychical apparatus is out of gear, and in readjusting and tuning it up to the proper pitch again. How this can best be done is still in

dispute. Since hypnotism has with a certain justice fallen into disrepute on account of its possibilities for ill and its exploitation by ignorant and unscrupulous persons for public amusement and for gain, many leading neurologists deprecate a resort to it, preferring to base their procedure upon frank inquiry and common-sense exposition and advice, the persuasive methods of Babinski and of Dubois. Other entirely reputable men claim hypnotism as a perfectly legitimate measure, in the hands of those skilled in its use, and assert that hypnosis makes possible a penetration into the inner psychical recesses, with discovery of morbid complexes and their proper rearrangement in response to suggestion, in a manner not possible by simple argument and persuasion. Dr. Sidis has recently described what he calls the "hypnoid" condition, which, while allied to hypnosis, has many analogies with normal sleep, and in this hypnoid state, he thinks refreshing and reintegrating of the nervous functions are most readily procured. That psychical analysis and treatment should be more widely applied, not only in hysteria and in other neurotic conditions, but as a prophylactic and educational measure, is growing more and more evident, and it behooves all physicians to open their minds to the fact that in this direction, though there will yet have to be a good deal of separation of fact from fiction, there lies the possibility of the development of a new and useful adjunct to our therapeutic resources.

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Prolonged application of cold to the eye is to be avoided, because of its devitalizing action upon the tissues. This caution particularly applies to affections of the eyes with involvement of the cornea.—*International Journal of Surgery.*



## THE CARE OF THE EARS OF INFANTS AND CHILDREN.\*

BY WILLIAM H. DUDLEY, M.D., LOS ANGELES, CALIFORNIA.

Inasmuch as a large percentage of the chronic forms of otitis media with defective hearing have their beginning in early life, the importance of this subject comes home to all of us, whose professional duties include the treatment of infants and children, with considerable force, and the insidiousness of the onset of some of these attacks admonishes us to be ever on the alert to detect inflammation of the ears of children, early in the course of the disease, as upon the early diagnosis and treatment of these conditions depends the success of the treatment, as well as the success in the preservation of the hearing. But first of all comes the importance, on the part of the physician, of familiarity with the appearance of the auditory canal and membrana tympani in health and disease. It may seem presumptuous to state before a body of learned medical men that this dexterity in the use of the head mirror and aural speculum should be lacking in any of our number; and yet, after an active experience in this particular work for more than fifteen years, I may state that there are cases presenting themselves from time to time which are far from being easy of diagnosis, even to one trained in the work; the oftentimes narrow canal, the great obliquity of the membrana tympani to the line of vision in children, as compared with adults, the restlessness of the patient, and many times the lack of control of the patient by the parents or guardians, all conspire to add to the difficulties of the examination; and if we now add a lack of dexterity, and familiarity in the appearance of the parts in various forms and grades of disease, as well as of health, we can understand that almost constant practice in these examinations

is well nigh indispensable in the making of a diagnosis of disease of the middle ear, from appearances in many cases, and it often happens that we are dependent largely upon the appearances for our diagnosis; therefore, I cannot too strongly recommend those who do not make routine examinations of the ears of infants and children to do so frequently and it may surprise some to note how often disease is found, when not specially suspected.

In taking up this subject, it is not the purpose of the writer to cover the whole subject of the care of the ears in infants and children, but particularly that class of conditions which are either dangerous to life, directly or indirectly, or which result in impaired hearing, which we all know will impair the usefulness of the individual in direct proportion to its extent, viz., otitis media, particularly in deference to the causes of the condition and their relief.

Causes of acute otitis media, in infants and children:

If it were possible to prevent the occurrence of the causes of these conditions in all cases, the subject covered by this communication could be easily dismissed, and while it is not always possible to do so, oftentimes it is. Among the most frequent causes of acute otitis media, we find the following, and nearly in the order named: First, influenza, scarlet fever, measles, acute catarrhal pharyngitis, pharyngeal adenoids, and salt water or river bathing, nearly equal in frequency when they exist, then whooping cough, typhoid fever and pneumonia. Therefore, during the existence of either of the before mentioned diseases, the attendant may well watch constantly, not only for the general symptoms of the condition, such

\*Read before the Southern California Medical Society at Redlands, Cal., May 5th, 1910.

as complaint of pain in the ear, and impaired hearing in children, and the rolling of the head, and the rubbing of the ear, and boring of the fist and fingers into the ear, and fretfulness and crying in infants; but by frequent inspection for the appearance of hyperemia, or positive inflammation in the membrana tympani. For, tell me, gentlemen, who of us have not, more than once, in our attention upon these little ones, seen, as the first indication of acute otitis media, pus running from the external auditory canal; a quiet form of the disease, running on to pus formation without pain or other special discomfort as shown by the patient.

Now if we had been on the lookout for this, and as soon as the membrana tympani showed positive signs of inflammation which hot douching and derivatives did not relieve, we would probably have "nipped the process in the bud," so to speak, by making a free incision in the tympanic membrane; not a mere puncture with the Politzer myringotome, but a good free incision, made behind and upward, not to liberate pus, but to relieve the inflammatory condition, and prevent its formation; this to be followed up by warm antiseptic irrigation. Again, during the progress of the acute exanthemata, not only should the ears be watched, but the pharynx, which nearly always suffers in these conditions, and from which comes the ear infection.

In the infant under one year of age, the management of the nose and throat condition, in an acute pharyngitis, either simple, or one accompanying the acute fevers, may consist in irrigating the throat through the nose with some weak alkaline solution, for which warm milk with from four to six grains of sodium bicarbonate added to the ounce, is a good cleanser, and this followed by a warm one per cent boric acid solution, or by a few drops of albolin, like the above solutions, allowed to run through the nose from a medicine dropper, will

usually serve a good purpose. In children over a year old, the same treatment, with proper modifications, can be carried out in most cases. The cleansing can be done in the older children by a douche, with but slight force, using a warm solution of sodium bicarbonate of one or two per cent, and followed by an albolin spray through the nose, containing one per cent of oil of eucalyptus and a few drops of oil of cassia to the ounce, three or four times daily. While this will not prevent infection of the ears in all cases, it will greatly reduce the frequency of acute otitis media, and if similar local treatment, together with appropriate general care in cases of simple acute pharyngitis in children can be carried out, a large number of cases of acute otitis can be prevented.

The use of the nasal douche has been justly condemned in the treatment of catarrhal pharyngitis, but mostly on account of its improper use. This usually occurs, in consequence of using the solution insufficiently warmed, or that the act of swallowing was performed during the douching, which opens the mouths of the Eustachian tubes, favoring the entrance of the solution into the tubes, carrying infection with it; but if the child holds the head forward, with the mouth open, during the douching, this is not likely to occur. A large douching is generally not necessary in these cases; a few ounces will be sufficient, and after a little practice is not irksome to the child.

During the period of teething of the child, earaches and acute otitis are not uncommon. In a child complaining of earache, without other sufficient cause, the teeth should be examined, and if found carious, the dentist should be consulted, and the teeth properly cared for. The pain may be simply a reflex neuralgia, which will be promptly relieved by proper care of the teeth; though an acute otitis may result from the same cause. The snuffing of cold water into

the nose may cause an acute otitis, and parents should be warned in cleansing the noses and throats of children by this method, that the water should be made mildly saline, and warm. In fact, this is *not* an especially good method of cleansing the throat of a child.

The question of sea bathing and the plunge bath demands consideration. In the ear clinics of New York City, during the summer season, probably one of the most common causes of acute otitis media is diving in the rivers surrounding Manhattan Island. The water, none too clean, obtains entrance into the noses and throats, as well as into the ears of boys indulging in this pastime, and the result is a large annual crop of these diseased ears. Children as well as adults should be taught that, if they go under water, especially in surf bathing, where waves often strike the side of the head with considerable force, and considerable water often enters the auditory canal, the canal should be stuffed loosely with raw cotton, which will prevent this cause of otitis. Burnett states that "it is noteworthy that no animal but man goes voluntarily under water without being provided with some means of preventing the water from running into the ears. It is a fact well known to many that hunting dogs taught to dive become deaf.

Some years ago, the practice of slapping or "boxing" the ears of children as a method of punishment was largely indulged in, though I am of the opinion that the practice is much less at present; however, whenever indulged in it is a pernicious one, and should be discouraged whenever opportunity affords, as many a membrana tympani has been ruptured in this manner, and followed by an acute otitis media, often of much severity.

One of the most common causes of otitis media—probably for the reason that the condition is exceedingly prevalent—is pharyngeal adenoids. With

the naso-pharynx more or less filled with these growths, the increased catarrhal inflammation produced renders the locality a most favored one for the multiplication of micro-organisms, of which an abundant supply is always present; and every acute pharyngitis increases the chances of these entering the middle ear with inflammatory consequences. The presence of these masses here interfere by pressure upon the pharyngeal extremity of the Eustachian tube, with the ventilation of the tympanum, while the hypervascularity of the epi-pharynx, extending up through the tubes into the tympanum, is often evident by the appearance of the tympanic membrane.

With these and other factors present, no child's ears are reasonably safe from the occurrence of an acute otitis, with all of its functions impairing, and life destroying complications. Therefore, whenever a child is presented with an inordinate amount of this growth present, unnecessary time should not be lost in its removal, and the removal should be done carefully, yet thoroughly. In the removal of these growths without due care, it is possible to damage the eustachian orifice and to *produce* an acute otitis media, and if not thoroughly done, especially in those suffering from a condition of lymphatism, a return in a few months is most likely, and may occur in some cases, where the utmost care is exercised.

It is possible for foreign bodies introduced into the external auditory canal to be of serious import. The entrance of various insects into this canal is often painful in the extreme, and though it is sometimes possible, with the aid of the speculum forceps and mirror to pull them out, this is by no means the best method of extraction. If nothing better presents itself, the careful injection of warm water will often bring them away. The introduction of a small amount of chloroform on a piece of cotton, into the canal will



usually soon render them lifeless, when they can be syringed out; but I have found that in the removal of quite small insects, like the flea, the filling of the canal with hydrogen peroxide will usually produce sufficient gas to float them to the surface. Children for some unaccountable reason appear to take pleasure in introducing various objects, like stones, cherry pits and beads into the nose and ears, and when these find their way deep into the auditory canal of small children considerable difficulty is often experienced in their removal. Sometimes it is easily done by the careful use of the syringe, but if this does not succeed, the child should be put under the influence of a general anesthetic, when the careful use of a good forceps, or an Alports hook, or both, will usually succeed. This I found necessary to do occasionally.

In reference to the treatment of otitis media: if the infant or child is brought in with an earache, and inspection shows the membrana tympani a deep red color with the lustre absent, the chances of resolution are not good, and free incision followed by antiseptic douching will usually be followed by prompt relief from pain, and speedy return to normal conditions. Should the membrana tympani be but moderately red, and the lustre still intact, the use of hot irrigations will often abort the disease, particularly if a free purgation be

obtained, with free perspiration produced by a warm bath, or hot mustard foot bath, and patient in bed. Should the patient be presented with a discharging ear of a week's or month's duration, the frequent irrigation with warm alkaline solution, or warm boric acid solution, insisting upon due care in using water as sterile as possible—and I usually go into details on this point—followed by boric acid and alcohol, or dilute alcohol, drops several times daily, and the patient seen at the office two or three times a week, and the treatment carried out more thoroughly, a large number will promptly show improvement, and ultimately become dry, with the reformation of the tympanic membrane. In ears with the history of suppuration, and discharge from the ear, extending over a period of from several months to several years, similar treatment may be used, and some will recover, but in quite a percentage of cases, caries of the ossicles has taken place, and their removal by an ossiculectomy, or radical operation, should be done, and will greatly reduce the number finally ending in a mastoiditis, sinus thrombosis, a cerebral abscess, or meningitis; all more or less dangerous to life, the latter particularly so, as we have not yet learned how to cure a purulent meningitis, a complication of otitis media purulenta.

610 Exchange Bldg.

## A YEAR'S WORK AT THE EYE HOSPITAL OF THE UNITED STATES INDIAN SCHOOL, PHOENIX, ARIZONA.\*

BY ANCIL MARTIN, OCUList.

Upon systematic examination of the eyes of the Indians in this section, the extent of trachoma infection has been quite accurately determined.

Our records show that 75 per cent.

of the pupils in attendance at the schools are afflicted. The percentage of trachoma cases upon the reservations will probably be found approximate to that of this school, i. e., 75 per cent.

\*Read before the Arizona Medical Association, April 20, 1910

Upon the reservations, however, the damaged eyes are far greater than in the school, for the reason that the percentage of old cases is greater.

The operations performed consist of expression, grattage, scarification, iridectomy for visual purposes, operations for entropion. Besides there have been several cataract operations. The operations are followed by daily treatment, or once, twice or three times weekly as the conditions of the case demand.

Case records are being kept of every pupil, normal or otherwise, and also of all reservation or outing cases examined. Re-examination of all cases in the school has been regularly made and a record kept of progress or otherwise in the operated cases, and any changes which may have taken place in suspicious or normal cases. Some cases, which at first examination were marked suspicious, or even normal, have, upon re-examination shown developed trachoma.

Many reservation Indians have presented themselves for treatment, who have been sufferers from trachoma for years, and whose vision has been more or less impaired, in many instances even to total blindness. The benefit derived by these patients in improved vision and relief from suffering, has resulted in the voluntary presentation at the hospital of many other afflicted reservation Indians. Many of these old Indians were unable to get about alone, but after operation and treatment returned home with useful vision. This improvement makes a man who can support himself, where formerly he was a burden and expense to others.

All reservation Indians are kept at the hospital at least thirty days, and if they are then in good condition, are permitted to return to their homes with instructions to report again to the hospital at stated intervals, or they are given written instructions to the reser-

vation physicians as to continued treatment.

As to sanitation and prevention I will state that single beds are used; swimming pools and tubs abolished and shower baths substituted. All lavatories have running water, no basins being used. Individual towels are provided and their use made compulsory by placing a guard in the lavatory at wash-up time. The laundry of the hospital is done separately from the general laundry. A large sterilizer has been installed at the laundry for sterilizing clothing, bedding and towels.

All pupils employed in town, graduates and outing pupils, are required to report to the hospital for examination. Cards are given them, which they are to present to their employers for inspection, which cards state whether or not the Indian has trachoma. Many of these outing pupils have been operated upon and are now returning regularly to the hospital for treatment.

The following statement shows the number of Indians examined and the diagnosis made. The designation "suspicious" is made in order that closer inspection will be given of these cases in future examinations:

Boys examined, 444:

Normal .....	65
Suspicious .....	56
Acute trachoma .....	167
Sub-acute trachoma.....	145
Old trachoma.....	11

Of these 17 suffered from some complication resulting from trachoma.

Cases operated, 265.

Girls examined, 390:

Normal .....	56
Suspicious .....	32
Acute trachoma .....	137
Sub-acute trachoma.....	141
Old trachoma .....	24

Complications, 17. Operated, 269.

Reservation Indians examined, 128:

Normal ..... 6

Suspicious ..... 1

Acute trachoma ..... 12

Sub-acute trachoma ..... 29

Old trachoma ..... 77

Cataract ..... 3

Complications, 65. Operated, 105.

Of the total boys and girls in school it will be seen that 75 per cent. have trachoma. The cases are not all of the same degree of severity, some being very mild and the others ranging from mild to very severe. The greater proportion of old trachoma complications among the reservation Indians treated will be noted.

## TWENTIETH ANNIVERSARY OF THE ORANGE COUNTY MEDICAL ASSOCIATION—A HISTORY.\*

BY JOHN L. DRYER, M.D., SANTA ANA, CAL.

The compliment tendered me by the Orange County Medical Association at its March meeting in asking me to write and transcribe into its records, with my own hand, a brief history of the society and its work for twenty years was indeed a high one, and is fully appreciated.

In prefacing this short account of the first twenty years of this Association, I will, I trust, be pardoned for using the first person in leading up to the actual beginning or formation of an organization which has meant so much to the medical profession in Orange County.

On the 4th day of June, 1889, the election for the formation of a new county resulted favorably for county division, and a legal separation of what is now Orange County from the mother county of Los Angeles. This led at once to a segregation of interests of all kinds and every sort of business began to adjust itself to the new regime.

There were at the period mentioned nearly as many physicians practicing in the new county as there are now, a careful estimate showing a very small net gain, and this has been mostly in outside places. Santa Ana, excepting Osteopaths, has but two more doctors than were here in 1889. Fullerton, Ana-

heim and Orange have each gained from one to four, while in some smaller outside places there has been a loss. Westminster then had none. Huntington Beach was not on the map. Fairview, Tustin, Capistrano, Bolsa neighborhood and McPherson, each had one, now none.

The profession was wholly unorganized with but few memberships even in the Los Angeles Medical Society, and only two in the state organization.

On the evening of June 12th, just eight days after county division had become an assured fact, the late Dr. J. A. Crane and myself were in conversation over medical matters, and the question of organizing a county society was mentioned. Dr. Crane expressed an ardent desire for immediate action, and for him to think was to act. Accordingly at noon of the next day he appeared at my door with a request that I at once see certain members of the profession, that he had already notified some and that it was the purpose to meet at 2 p. m. in Judge Humphrey's office on Main Street, situated where the building occupied by the Sunset Club now stands. The reason for such hasty action was that certain undesirable parties were that day proposing a

\*Advance sheets of the History of Medicine in Southern California by Dr. Geo. H. Kress.





FOUNDERS OF THE ORANGE COUNTY MEDICAL ASSOCIATION.

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| 1. W. B. WALL, Pres. 1889, 1894, '95, '96<br>(Deceased). | 5. W. B. WOOD, Pres. 1900.             |
| 2. J. P. BOYD, Pres. 1902.                               | 6. C. D. BALL, Pres. 1893.             |
| 3. J. R. Medlock, Pres. 1901                             | 7. J. A. CRANE, Pres. 1897 (Deceased). |
| 4. J. M. LACY, Pres. 1890.                               | 8. S. B. DAVIS.                        |
|  | 9. JOHN L. DRYER, Pres. 1892.          |

county organization which would necessarily include some very objectionable elements. It was to forestall such action and secure recognition from the Medical Society of the State of California that the meeting of June 13th was called.

A summary of the minutes of this first assembling of the doctors is as follows: There were present the following gentlemen: Dr. W. B. Wall, Dr. J. A. Crane, Dr. J. M. Lacy, Dr. S. B. Davis, Dr. J. L. Dryer, Dr. C. D. Ball, Dr. J. P. Boyd, seven in all.

Dr. Crane called to order and stated the object of the meeting. Dr. W. B. Wall was elected temporary president and Dr. J. P. Boyd temporary secretary.

The following agreement was drawn up and signed by all present: "We, the undersigned physicians of Orange County, agree to form ourselves into an organization to be known as the Orange County Medical Association, and to be governed by such rules as may hereafter be determined upon."

On motion of Dr. Crane the secretary was authorized to receive the signatures of Dr. J. R. Medlock and Dr. L. H. Fuller, who had signified their willingness to become members, but were unable to be present. The following resolution was offered and unanimously carried:

"Resolved, that any regular physician of Orange County against whom no objection is raised at a subsequent meeting may be admitted and allowed to participate in the organization of this society."

Under this resolution Dr. J. H. Bullard of Anaheim and Dr. W. B. Wood of Orange were received and became participants. The names of the charter members, so to speak, together with their colleges of graduation to show the wide range of places from which they came to Southern California, are as follows, there being eleven in all:

W. B. Wall, M.D., Tustin, Jefferson Med. College, Pennsylvania.

J. A. Crane, M.D., Santa Ana, Med. Dept. Wes. Res. Ohio.

J. M. Lacy, M.D., Santa Ana, Med. Dept. U. of Nashville, Tenn.

C. D. Ball, M.D., Santa Ana, Univ. Bishops' Col., Quebec, Canada.

J. P. Boyd, M.D., Santa Ana, Med. Dept. U. City New York, N. Y.

J. L. Dryer, M.D., Santa Ana, Cin. Col. of M. & S., Ohio.

S. B. Davis, M.D., Santa Ana, Med. Dept. U. of Michigan, Michigan.

J. R. Medlock, M. D., Santa Ana, St. Louis Med. Col., Missouri.

L. H. Fuller, M.D., Tustin, Med. Dept. Dartmouth Col., N. H.

J. H. Bullard, M.D., Anaheim, Harvard Med. Col., Massachusetts.

W. B. Wood, M.D., Orange, Mo. Med. Col., Missouri.

The next meeting was held June 25th, at which time a Constitution and By-Laws were adopted, and under the permanent organization the following officers were elected and installed to serve until the first annual meeting in 1890:

President, Dr. W. B. Wall; vice-president, Dr. J. M. Lacy; treasurer, Dr. W. B. Wood; secretary, Dr. J. P. Boyd. Board of Censors, Dr. C. D. Ball, Dr. J. R. Medlock, Dr. J. H. Bullard.

The first members elected under the constitution were Dr. I. D. Mills, Santa Ana, Indiana Med. Col., Ind., and Dr. D. W. Hunt, Anaheim, Med. Dept. U. of Mich., whose applications were received in August and favorably acted upon in September. On Nov. 5th Dr. J. A. Blake of Fullerton was elected to membership, but there is no record of his ever having at any time honored the Association with his presence.

The year 1889 closed with fourteen members upon the roll, and no additions to this list occurred until 1894, while there was during this period a





1. L. W. ALLINGHAM, Pres. 1898 (Deceased).
2. H. S. GORDON, Pres. 1901.
3. WM. FREEMAN, Pres. 1903.
4. C. H. DOBSON, Pres. 1906.
5. F. M. BRUNER, Pres. 1907.
6. JOHN WEHRLY, Pres. 1908.

7. J. H. BEEBE, Pres. 1909.
8. J. M. BURLEW.
9. J. I. CLARK.
10. H. E. W. BARNES.
11. C. C. VIOLETT.
12. IDA B. PARKER.
13. D. F. ROYER.



net loss of three on account of changes of location. These were the Dr. Blake above mentioned, Dr. S. B. Davis and Dr. L. H. Fuller, the two last named charter members.

The minutes of these years show excellent work in the way of papers and discussions and study. The first paper was read by Dr. C. D. Ball at the meeting of July 2nd, 1889, who reported some interesting cases of pulmonary disease and exhibited some pathological specimens. From this time until the present, meetings have been regular and well attended, and the interest has never abated. Especially was this true of 1890. The first annual meeting was a public one held in Spurgeon's Hall, and addressed by Dr. Walter Lindley and Prof., now Judge Conrey of Los Angeles.

The year 1890 was full of interest, an important event occurring in the spring when the Medical Society of California met in annual session in Los Angeles.

This was the successful fight against professional indecency and unethical conduct, the contest being carried into the State Society and into the Medical Society of Southern California, and resulting in the expulsion from both bodies of an offending member of those societies, although his membership with said societies antedated the formation of our own organization. The moral effect of this action has proven an excellent one for this Association, and has enabled it to uphold a high standard of medical ethics.

Under a provision of the constitution, Drs. T. A. Davis and C. M. Fenn of San Diego and Dr. Elizabeth Follansbee of Los Angeles were elected honorary members of the Association. This action was taken in recognition of their eminent services in the profession and also as a token of appreciation for their sympathy and assistance in the contention before the State Society the previous year. Under a new by-law pro-

viding for associate members, Dr. F. A. Wood of Orange, a retired physician was elected an associate member in 1891.

In June of this year, 1891, the Association entertained the Medical Society of Southern California, the meeting and banquet being held in what was then the Odd Fellows' Hall in the First National Bank Building. The meeting was well attended and a good time was had by all. An excursion about and through the valley was greatly appreciated by the visiting doctors, although there was a marked absence of automobiles. Twice since then this Association has entertained the Southern Society, one of these times being in 1897, again without automobiles; the other being in 1908, when a crowd of machines were ready, but the weather was not.

From the very beginning of this organization, good work in the preparation of papers and presentation of cases for clinical study have been the rule. The average number of papers read annually for twenty years has been eight, making a grand total of one hundred and sixty. Until the completion of the Carnegie Library building the meetings have usually been held in the office of the physician whose time it was to read a paper or lead a discussion. For the most part these have been in Santa Ana, though many interesting sessions have been held in the surrounding towns when the physicians in such town have seen fit to invite the members there. Since the Carnegie Library has been completed the sessions, when in Santa Ana, have been there in the executive committee room, adjoining which a growing library has been established in a convenient alcove containing at the present time several hundred volumes. All classes of subjects have been treated in the papers and discussions, and one who is disposed to search the records for the nature of these will find they have all kept pace with the progressive spirit of the profession. Though from the first organization in 1889 until 1894.

the membership declined in numbers it never fell below the original number eleven. Death has dealt kindly with us, only three active members having passed away during this period. In 1903 the loved and honored physician and gentleman, Dr. J. A. Crane, died suddenly in his home in Santa Ana. He had recently returned from a four-years service as superintendent of the State Hospital for the Insane at Agnews, Cal. During this absence he retained his membership in the Association and came back to Orange County on account of failing health. In his splendid character, his attainments as a physician, his success in the public position above mentioned, this body has every reason to be proud, and as long as the Orange County Medical Association exists it will cherish and honor his memory.

Another, Dr. J. G. McCleod of Garden Grove, died while in active membership. Dr. McCleod joined the Association in 1903, but failing health prevented his attendance except on one or two occasions. He died at Newhall, where he had formerly practiced his profession. Of those who have left the county or retired from active membership, Dr. L. W. Allingham, who served as president in 1898, died a few years later in Ramsberg, Cal. Dr. Allingham was always an earnest and conscientious worker in the society, and added much to the interest as long as he remained a member, or until failing health caused him to remove from our midst. The next of the honored and revered ex-presidents to go was the late Dr. Wm. Burgess Wall, a man whose great interest not only in his profession but in all things relating to his fellow-men, brought him in contact with almost every social, business and professional interest in Orange County. Although a retired physician he was chosen the first president of the Association and served in the same capacity three successive terms several years later. His sympathies and his aspirations were always

with the doctors of his time, and he strictly continued his relations to the Medical Society of California as well as the local organization. So far as known there have been no other deaths either among members or ex-members, although during the twenty years of the existence of this Association an even fifty names have been borne upon its roll of membership. Some have come into the county, affiliated with the Association for a longer or shorter period, and then moved on to other fields. Since under the rules of this Association membership is vacated by removal from the county and residence elsewhere, it is impossible to give the exact duration of any membership so terminated.

Beginning with the new influx of members in 1894, the first after the three accessions mentioned in the latter part of 1889, the list of members to the present time is as follows:

1894—J. G. Berneike, M.D., Santa Ana; L. N. Wheeler, M.D., Tustin; C. W. Rairdon, M.D., Santa Ana; F. E. Wilson, M.D., Westminster.

1895—A. F. Bradshaw, M.D., Orange; G. J. Rubleman, M.D., Santa Ana; L. W. Allingham, M.D., Tustin.

1896—None. The only year since 1894 up to date without accessions.

1897—J. B. Cook, M.D., Santa Ana; W. V. Marshburn, M.D., El Modena.

1898—G. S. Eddy, M.D., Anaheim; D. F. Royer, M.D., Orange.

1899—Wm. Freeman, M.D., Fullerton; H. S. Gordon, M.D., Westminster; F. M. Bruner, M.D., Santa Ana.

1900—A. Bennie, M.D., Santa Ana; J. A. Tyler, M.D., Anaheim.

1901—E. M. Freeman, M.D., Santa Ana; John Wehrly, M.D., Santa Ana.

1902—R. A. Cushman, M.D., Tustin; G. H. Dobson, M.D., Santa Ana.

1903—H. A. Johnson, M.D., Anaheim; Ida B. Parker, M.D., Orange; J. G. McCleod, M.D., Garden Grove; J. W. Jones, M.D., Orange.

1904—J. I. Clark, M.D., Santa Ana; J. M. Burlew, M.D., Santa Ana; G. A. Shank, M.D., Westminster.

1905—J. H. Beebe, M.D., Anaheim.

1906—C. C. Violet, M.D., Garden Grove; J. S. Gowen, M.D., Fullerton; C. L. Rich, M.D., Fullerton.

1907—F. J. Gobar, M.D., Fullerton; H. E. Barnes, M.D., Santa Ana; W. H. Syer, M.D., Anaheim.

1908—S. G. Huff, M.D., Westminster.

1909—H. M. Robertson, M.D., Santa Ana.

The present membership is twenty-four, embracing nearly all of the regular physicians in Orange County.

Of the original membership but five of the eleven remain upon the list, viz., Dr. J. M. Lacy, Dr. J. R. Medlock, Dr. C. D. Ball, Dr. J. P. Boyd and Dr. J. L. Dryer.

There have been seventeen presidents, Dr. W. B. Wall having served four years, first in 1889, again in 1894, 1895, 1896. Each of the others served single years as follows: 1890, Dr. Lacy; 1891, Dr. Medlock; 1892, Dr. Dryer; 1893, Dr. Ball; 1897, Dr. Crane; 1898, Dr. Allingham; 1899, Dr. Berneike; 1900, Dr. Wood; 1901, Dr. Gordon; 1902, Dr. Boyd; 1903, Dr. Wm. Freeman; 1904, Dr. Wilson; 1905, Dr. Jones; 1906, Dr. Dobson; 1907, Dr. Bruner; 1908, Dr. Wehrley.

There have been ten secretaries, viz.: Dr. Boyd, Dr. Ball, Dr. Fuller, Dr. Dryer, Dr. Rubleman, Dr. J. B. Cook, Dr. Berneike, Dr. Gordon, Dr. Clark, Dr. Burlew. Dr. Boyd served three years, Dr. Ball two and a half years, Dr. Fuller one-half year, Dr. Dryer six and one-half years, Dr. Berneike one and one-half years, Dr. J. B. Cook one-half year, Dr. Gordon four years, Dr. Clark one-half year, Dr. Burlew one and one-half years.

In 1895 Dr. C. W. Rairdon was elected secretary, but never acted in that capacity.

The first constitution and by-laws were formed to meet the requirements of the Association and to conform to the code of ethics of the American Medical Association. These were afterwards remodeled under the constitution of the Medical Society of the State of California, each member of a county organization in affiliation with the parent society being also a member of the latter.

The endeavor has always been to promote harmony and good fellowship among physicians. Many knotty points in medical ethics have been thrashed out, sometimes to the satisfaction of all, at others to the disappointment of a part of the membership. The records which are to be preserved in the library of the Association contain all details of these disputes and controversies, and have no place in such a review as the present one. They are matters of history recorded in black and white, and if in the future any curious reader of this historical sketch, which is also to be a matter of record, should desire to read them, it will be an easy matter to find them. It will be better, however, to forget them and to ever bear in mind the good which this society has accomplished. May the next twenty years be as prosperous.

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It is said that bicarbonate of sodium, when given before meals, serves to increase the flow of gastric juice, and is found to relieve the pain of tardy digestion in an effective manner, in cases of deficiency of acid. It then acts as a sedative to the irritated stomach, and relieves the painful conditions arising from a deficient secretion of gastric juice. When taken after meals, it is useful in counteracting excessive acidity of the stomach. In deficiency of acid, small doses may be given at meal times, but larger quantities about an hour before meals. The dose itself must be varied according to the case.



## BRIEF HISTORY OF THE PASADENA MEDICAL SOCIETY.\*

BY D. B. VAN SLYCK, M.D.

On September 6, 1888, the following postal card was sent to each physician of the city:

DEAR DOCTOR:—It has been suggested that the resident physicians of Pasadena should form an association for the promotion of social and professional interests. For that purpose, it is purposed to call a meeting at the parlors of the Carlton Hotel at 5 p.m. Thursday, September 13, 1888. A dinner will be served at that time at \$1.00 per plate. Should you desire to participate, will you please notify Dr. A. H. Davis, lock box 891, on or before Thursday, September 11? Respectfully,

GEO. DEACON, M.D.

D. B. VAN SLYCK, M.D.

A. H. DAVIS, M.D.

FORDYCE GRINNELL, M.D.

Pursuant to this call, there assembled at the Carlton Hotel at the appointed time, Drs. Davis, Van Slyck, Deacon, Grinnell, Hall, Swennengen, Slaughter, Pinkney, Shirk, Eveleth, McAllister, Dalrymple, Radebaugh and Rowland—fourteen physicians in active practice, excepting Dr. Slaughter, retired.

After an hour of social converse and informal discussion of the object of the meeting, and the enjoyment of an excellent dinner, Dr. Van Slyck was called to the chair and it was voted to organize as a permanent medical association.

In accordance with a vote of the meeting, the chair appointed Drs. Rowland, Radebaugh and Grinnell a committee to draft a constitution and by-laws.

The meeting adjourned to meet October 30 in the rooms of the Pickwick Club.

At the second meeting, on the date and at the appointed place, a constitution and by-laws were adopted, and Dr. Davis elected President; Dr. Radebaugh,

Vice-President; Dr. Rowland, Secretary, and Dr. Hall, Treasurer.

At this meeting Drs. Arnott, Fraser, Kelsey and McWilliams joined the society.

It is interesting to note that, of these seventeen original members, there are still in practice in Pasadena Drs. Deacon, Grinnell, Radebaugh, Van Slyck, Swearengen, Shirk and Rowland.

During the first year of the society the attendance of members varied from six to twelve in number.

At the next annual meeting, October 30, 1889, Dr. John Adams was elected President, and the other officers re-elected.

It appears from the record that Dr. Adams served as President until February 20, 1892, when, I infer, he either left town or the society ceased to hold regular meetings or elect officers. During the presidency of Dr. Adams, the interest of members in the society was at a very low ebb. Drs. Shirk and Radebaugh had resigned March 3, 1890, and the attendance on the meetings had dwindled to two or three, or at most four.

There are no records of a meeting from February 20, 1892, until October, 1894, when the physician of the city were called together to provide for the entertainment of Southern California Medical Society, which met in Pasadena October 19.

The profession responded liberally, and the entertainment was in every way satisfactory.

This meeting of the Southern California Medical Society had a very salutary local effect, equal to a "revival effort," convicting of sin and bringing backsliders back into the fold—the result of bringing us all together once more.

\*Read before the Pasadena Branch of the Los Angeles County Medical Society, October 1, 1908, by D. B. Van Slyck, M.D.

Note.—This paper is incorporated in the History of Medicine in Southern California by Dr. Geo. H. Kress. This valuable work will be issued in a few days.

November 2, 1894, the society met and elected Dr. Van Slyck President, Dr. Mohr Vice-President, and Dr. Rowland Secretary-Treasurer.

At the next annual meeting the election of officers was postponed, and did not take place till February 28, 1896, when Dr. F. F. Rowland was elected President.

January 28, 1897, Dr. R. J. Mohr was elected President. From this time on there was an annual election of officers, and the presiding officers served in the following order: 1898, Dr. Grinnell; 1899, Dr. King; 1900, Dr. McBride; 1901, Dr. Abbott; 1902, Dr. Lockwood; 1903, Dr. Shirk; 1904, Dr. Mattison; 1905, Dr. Roberts; 1906, Dr. Fenyes; 1907, Dr. Hoag; 1908, Dr. Sherry.

The last four presiding officers were elected under the new constitution of the State Society, by which all local Medical Societies were merged in the County Societies, and the Pasadena Medical Society became the Pasadena Branch of the Los Angeles County Medical Society. Its presiding officer is called chairman and is elected annually.

This society, since its organization in 1888, has had but two Secretary-Treasurers, Dr. F. F. Rowland to 1896, and Dr. J. E. Janes to the present time—both very painstaking and efficient officers.

It is only fair to say that the apparent apathy of the profession in Pasadena up to about '94 and '95, was but a reflection of the general depression, discouragement, sense of property loss and depreciation incident to the collapsing of the great "boom" of 1887. About '94 and '95 values seem to have been adjusted, and the city commenced a career of growth and prosperity which has continued to the present time.

In 1890 its population was only 5000; in 1900, 10,000. At the present time it is believed to be not less than 30,000. With this rapid increase in numbers, there have come to us from the East many physicians—specialists in all lines,

as well as general practitioners—and fortunately for the profession and the city, their talents, character and qualifications, professional and scientific, will average as high as any equal number in the land.

This society, like everything in nature, has been an evolution, constantly taking higher and higher ground, and increasing its influence for good in the community.

We have reason to be proud of our society, of its standing in comparison with other similar bodies, County or State, and of the work it has done and is doing.

It has always taken the lead in every matter of sanitary improvement, the construction of sewers, in cleaning up the city, in enforcing the cleanliness of all occupied premises, in the inspection of milk and all food supplies, and last, but not least, in bringing about the medical inspection of schools; indeed, it has always been foremost in discussing all questions of public health, as well as most measures pertaining to the general welfare of the city. I am sure we were practically a unit in desiring the municipal ownership of water, and regret the defeat of the bonds in the recent election. From a sanitary point of view we must deeply deplore the defeat of the bonds for an incinerator. The disposal of the city's garbage as at present conducted is a disgrace to the city, and a menace to the public health.

I trust we can effectively exert our influence to bring about a better state of things in this regard in the near future.

The School Inspector, the Health Officer, and the members of the Board of Health are all members of this society. The former has already, in less than one year, fully demonstrated the value and importance of his office, and that he is the "right man in the right place." The Health Officer has won golden opinions for his industry and thoroughness, and his department is a model of

efficiency and so considered everywhere in Southern California.

When the addition and improvements to our hospital, now in progress, are completed, we can justly claim that we have an institution of which a city of three times our population might be proud. Its inception began with this society and in its development it has relied upon and received our unqualified support.

In looking over the records of the society, I was struck by the admirable synopsis of the papers generally, as

given by the secretaries, and also of their interest and practical value. It was also exceedingly interesting to note how thoroughly they kept in touch, as time went on, with the advancement of medical science and practice, and the high order and scientific value of many of the papers, especially of those of the last few years.

With this brief sketch of the society's history for twenty years, I leave to the members, old and new, to add such reminiscences as may occur to them, and to correct any errors I may have inadvertently fallen into.

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## THE OPEN OR SURGICAL TREATMENT OF FRACTURES.

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BY C. P. THOMAS, M.D., SURGEON TO ST. LUKE'S HOSPITAL, SPOKANE, WASHINGTON.

The X-Ray and post-mortem findings, with the large number of ununited or badly united fractures, seen by me as consulting surgeon, has served to convince me that there is great room for improvement in the care of many varieties of this most common result of trauma.

Our courts of justice are being constantly presented with radiographs of crooked and displaced bone fragments, due to fractures; not necessarily due, however, to malpractice, and often the doctor and corporation pay damages, not because the individual has not a serviceable limb, but because the shadow-graph shows that a complete reduction with coaptation has not been maintained long enough to permit a perfectly smooth union, when such complete and perfect reduction may have been quite impossible, for reasons I will show later.

In post-mortem findings, often there is marked displacement with lateral union, partial over-riding, with imperfect coaptation being the rule, although

the individual may have had a perfectly useful limb.

Ununited fractures, nearly all of which have been treated without operation, are seen by the writer as often, or more so, than primary ones. These facts serve to convince me that under proper technique and in competent hands, many fractures can be treated more safely and perfectly by the open method, than by the closed. I would urge, however, that this cannot be done safely in unclean surroundings, or by a surgeon who is rough and unskilled in manipulation.

There are a number of definite reasons why nonunions and vicious unions occur, and I will endeavor to point them out in the course of this article.

While I have seen tendons and muscles interposed between the fragments, I have just as often seen a fragment of bone lying transversely between the main ends of the bones. I believe, however, the most common cause of nonunion is faulty coaptation, due to muscular contraction, preventing



the constant maintenance of direct apposition of the broken fragments.

I will enumerate a few of these incidents, describing briefly the treatment of each, by the open method.

The classical fracture of the lower third of the femur with backward dislocation of the lower fragment, due to the contraction of the gastrocnemius muscle which is attached to its posterior surface, and with marked shortening of the whole length, due to contraction of all the large thigh muscles which are attached in and around the knee joint, is one requiring surgical treatment.

I have seen all the different extensions and counter-extension apparatus for the treatment of this fracture, but so far as I know, none of them give even fair results, and very often no union whatever is gotten, for the simple reason that the fragments are from two to four inches apart.

In this fracture, the open method with the silver plate and screws applied on the anterior or external surface of the bones permits a perfect coaptation to be maintained.

Fractures of the middle third of the femur may be treated by the closed method, by Buck's extension, with coaptation and long lateral splints, with almost universally good results.

Fractures of the upper third of the femur, owing to the traction of the glutei, pyriformis, and other strong muscles which are attached to the neck and greater trochanter of the femur, can not be properly reduced and held in apposition except by the open method.

The open method with silver plate and screws, if the fracture is not too near the greater trochanter, is most satisfactory, if at or near the trochanter, then steel nails or silver screws are to be used.

Middle third tibial fractures which are not perfectly transverse are best treated by plate and screws, since overriding or muscle interposing is the rule.

If this fracture is transverse there will be no trouble in holding the bones in apposition at the time of setting, without operation.

If, however, it constantly tends to re-displacement while manipulating it, during reduction, it will indicate that the tibia is broken diagonally, and should be opened and plated.

No attention need be paid to the fibula if this is done as a primary operation, but when done as a secondary procedure, the fibula must be refractured if united. Unless this precaution is taken the limb will tend to get back into the original position which was present when the fibular union took place; this position usually not being a correct one.

Fractures of any portion of the shaft of the humerus are, I believe, best treated by the open method, with plate and screws, since by this method only, can we be cured of an accurate coaptation of the fragments.

Half way between the posterior and external surfaces of the arm and over the seat of fracture, is the proper place for the incision, the only nerve of importance to be avoided being the musculo-spiral.

The inner surface is too inaccessible and the inner and anterior surfaces are in too close proximity to important nerves and blood vessels.

If the fracture is in the middle or lower third it is still safer to plate it, since it enables one to actually find and liberate the musculo-spiral nerve and prevent its getting into the broken area and being damaged secondarily by callosus formation.

If in the upper third, the plating method is about the only one which can be relied upon to hold the ends in apposition owing to the flail-like action of the arm.

Fractures of the lower jaw are generally compound, either externally or

into the mouth. In either event they are best treated by wiring or plating and in many of them, they should be reinforced by dental wire or bridge-work.

Fractures of the malar process of the superior maxillary, with backward displacement of the fragments can be lifted into place where it will remain without splints, by passing a strong, bent hook, such as is used by dentists, through a small skin puncture in the cheek over the seat of fracture, catching it under the fragment and forcibly pulling it into place.

Fractures of the skull are best treated by the open method, for the well-known reason that such injuries are so often accompanied with cerebral pressure, with the accompanying paralytic symptoms.

Fractures of the fore-arm which can not be held in apposition by splints, because of muscle contractures, may be wired, preferably with aluminum bronze, as it is stronger than silver wire, and just as non-irritating. Plating here, owing to the smallness of the bones, is hardly justifiable.

Wire, heavy 440-day catgut, or kangaroo tendon, is also used in patella fractures, all of which should be treated by the open method, preferably on the third day after the injury (if not compound), when active bleeding and swelling have subsided.

Great care should be observed in this fracture, to remove all blood clots and to lift up the overhanging periosteal fringe which covers the fractured surfaces, making perfect bone coaptation possible.

Fractures of the clavicle, near either end, are best treated by wiring, otherwise there will be considerable displacement and over-riding, although non-union of this bone occurs very seldom.

Wiring of the large, long bones has, in my experience, but little value, as

it is seldom possible, by it, to prevent lateral displacement.

It will of course be understood that the open treatment of fractures of long bones must be followed by the usual splints for maintaining the proper position of the limb, except in femur fractures, where there will be but little weight required on the extension apparatus.

It is the practice of the writer to provide for forty-eight hours of drainage of the wound by wick drain, if complete haemostasis has not been gotten, at the time of completion of the operation.

Better results are gotten by primary than secondary operative treatment of fractures owing to the better mobility of the joints, and lessened muscular contraction; also there is less likely to be shortening due to loss of bone; it being remembered that in all long bone fractures the two adjacent joints must be immobilized, this long continued immobilization of the joints tending to cause ankylosis.

Dr. Lane of London uses a varying sized nickel-plated heavy steel plate with screws, instead of silver plate. I see no advantage in them over flat silver plates, and I do not think they are either as mechanical or surgical as the flat silver plates, the latter being sufficiently strong for the purpose, and when placed in the tissue they do not represent so large a foreign body.

The plates and screws I use are made by the Willms Surgical Instrument Company of Baltimore. The plates are of silver and of two sizes, as are also the screws. I think the latter are of German silver or some composition to make them harder and more serviceable.

No attention need be paid to the periosteum when applying the plate, but great care should be observed to drill the holes so the screws will fit snugly

in the bone, otherwise they will not hold. I have used this method in about one hundred cases and unless there is extensive suppuration with necrosis, I have not had to remove the plates, and the results have been very satisfactory.

If suppuration does not occur it may hold the bones in apposition until sufficient union has taken place to hold the parts at rest after the plate is removed, and good union forms.

Owing to the well-known tolerance of all the tissues to silver, even if there is some suppuration, unless the bone is necrosed, the sinus soon closes up and repair goes on as if no foreign body were present.

Should I advocate the open or surgical treatment of all fractures, I would expect to be subjected to quite severe criticism by my confreres, but I will predict that in the near future, at least all of the fractures I have described will be so treated and possibly more. I will, however, repeat that the method is one to be advised only where a well established technique exists and by a surgeon possessing mechanical skill.

In dysentery no solid food should be allowed until all blood and mucus have disappeared from the feces, and diarrhea, colic and tenesmus have subsided.  
—*Editor Howe.*

Hydrotherapy was used by Hippocrates. Horace tells us of Antonius Musa, the "hydropathic physician," to Emperor Augustus. Celsus and Galen made favorable mention of the use of water in the cure of disease. During the Middle Ages, Palus, Paracelsus and other physicians of note, advocated the use of water and extolled its virtues. Physicians of England, during the eighteenth century, wrote of water in the cure of disease. And yet we find Vincent Priessnitz, a Silesian farmer, was

the first to establish a hydropathic clinic, and to put the use of water, cold and hot, internally and externally, upon a scientific, popular and profitable basis, which, with his hygienic teachings, established "a new system of treatment," and to this layman we owe much of our present knowledge of hydrotherapy.

To remove the odor of iodoform from the hands, mortars, etc.: Rub a small quantity of tannic acid on the object to be deodorized. Wash well, and the odor will immediately disappear.

For treatment of sprained wrist or ankle submerge the sprained hand or foot in water as hot as can be borne, and keep the temperature of the water up by taking out some and adding fresh hot water from time to time. This should be kept up for hours in severe sprains, and when taken out bathe the sprained part with lobelia. The hot water process should be continued more or less for two or three days. It will relieve the tension of the nerves and circulation, soothes the injured muscles and ligaments, and relieves the hyperemic and congested conditions present. The parts injured may be weak for a few days. This process is simple, effective, and quickly cures. Let the lobelia be applied freely when the part is not in water.

A sandbag as a warmer is said to be greatly superior to a hot-water bottle, which many people prize so highly. Get some clean fine sand; dry it thoroughly; make a bag about eight inches square of flannel, fill it with dry sand, sew the opening carefully together, and cover the bag with cotton or linen cloth. This will prevent the sand from sifting out, and also enable any one to heat the bag quickly by placing it in an oven or on top of a stove. The sand holds the heat for a long time.



# SOUTHERN CALIFORNIA PRACTITIONER

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## EDITORIAL

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### DUODENAL ULCER.\*

Those of us who were engaged in the study and practice of abdominal surgery, even as recently as ten years ago will remember that ulceration of the duodenum was looked upon as a rare disease, nor did we recognize it very readily in the living and only occasionally at the post-mortem table. Today it is readily recognized as one of the common diseases and its discovery presents no greater difficulty; certainly a trained clinician should find no difficulty. No one man deserves more credit for the illumination of the dark places than the author of this book, Mr. B. G. A. Moynihan of Leeds.

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\*Duodenal Ulcer, By B. G. A. Moynihan, M.S. (London) F.R.C.S., Senior Assistant Surgeon at Leeds General Infirmary, England. Octavo of 378 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$4.00 net; Half Morocco, \$5.50 net.

How long it has taken us to realize that the so-called functional diseases of the stomach hardly exist at all, but that they are in the vast majority of instances due to structural changes in the stomach, duodenum, gall-bladder or appendix.

The symptoms which the older physicians believed to be due to the derangement of the functions of the stomach, the surgeon has shown to be caused by changes in the texture of one or other of the several organs.

Moynihan believes that among all these forms of organic diseases, duodenal ulcer stands out the clearest. He also believes that one result of this surgical discovery must be that the physician now knowing well that which formerly was not suspected, namely, the attachment of the symptoms he recognizes to be an organic lesion, will in-

sist upon a much stricter and more prolonged medical treatment. In this way, it is probable, that some, at least, of the cases which now seek help at the hands of the surgeon may be permanently relieved of their sufferings by this greater care, and escape the need of operative attentions.

After a short consideration of the history of the subject, the book opens with very good chapters on the toxic ulcerations of the duodenum, first the ulceration of the duodenum in burns and scalds and then the uraemic ulcer of the duodenum whose direct causation has not yet been satisfactorily explained.

Septic emboli may play a part; in the alimentary canal they would produce hemorrhagic infiltration, which, immediately beyond the pylorus, would readily be converted into ulcers by the gastric juice.

The literature of melaena neonatorum and duodenal ulcer has been carefully culled, and a chapter of fifteen pages with a number of illustrative cases, has been written on this subject.

No man who has studied his cases carefully will fail to agree with Moynihan's statement that there are few diseases whose symptoms appear in such a definite and well ordered sequence as is observed in duodenal ulcer and that the symptoms of duodenal ulcer are as a rule definite and not easily to be mistaken and that they appear in order and with precision that is indeed remarkable.

The one hundred and eight pages in which is considered chronic duodenal ulcer, its diagnosis, treatment and complication are of great interest, because,

in our present state of knowledge, this will be the stage in which we will see most duodenal ulcers. The mass of general practitioners, as a rule, have not as yet learned the ease with which an early diagnosis may be made, and many ulcers remain unrecognized and pass into the chronic stage, when the complications make the diagnosis as hemorrhage, occult or open, adhesions, or maybe perforations. In the stage when the presence of ulcer should be recognized, no single sign indicating the presence of organic disease exists, there is no need, says Moynihan to await their arrival before making, as we can make with the utmost confidence, an exact diagnosis.

Our experience is absolutely in accord with his in that a large number of cases on examination of the abdomen reveal no abnormal conditions. He constantly operates upon the strength of the history alone, and as often demonstrates the existence of a chronic ulcer.

As Moynihan correctly says, upon a carefully taken anamnesis a confident diagnosis of duodenal ulcer may be made. The anamnesis is everything, the physical examination is relatively nothing. He has coined a happy term, "hunger pain," which aids the diagnosis very much.

He has laid low the bogie that the symptoms are always due to an excessive acidity in the gastric juice, showing that there is no foundation in fact for this venerable fallacy.

Recurrent severe hyperchlorhydria is duodenal ulcer; the symptoms of which the patient complains are ascribed to

hyperacidity, but Moynihan says that it is extremely interesting to know that it is usual for the gastric juice in such cases to contain less free HCl than the normal. *Persistent hyperchlorhydria is the medical term for the surgical condition known as duodenal ulcer.* No one is more skeptical than Moynihan in interpreting the appearance of the stomach and duodenum during the course of the operation. He does not believe in the duodenal ulcer which cannot be demonstrated to the most skeptical assistant or onlooker. The ulcer is always a visible, tangible, demonstrable lesion. He further makes the important statement that in a large experience he has never operated upon a case of protracted or recurrent "hyperchlorhydria" without finding a duodenal ulcer. In such cases he rarely finds any excess of acidity when a test meal has been given. Mark well these statements of this master; they are extremely important. Also mark this—neither hematemesis nor melaena should be considered among the usual signs of duodenal ulcer. They are a witness to neglected opportunities.

Moynihan believes hemorrhage from the duodenal ulcer to be a sign of grave significance, of far more serious import than bleeding from a gastric ulcer.

There has been a great deal of discussion in regard to the test for occult blood and its value in diagnosis. It is therefore a great pleasure to quote the words of this experienced observer, the more so as I am entirely in accord with him. He says: It is probable that a certain degree of hemorrhage occurs in many cases of duodenal ulcer without

being recognized. If the stools were carefully and regularly examined, traces of occult blood would surely be found, but since I have realized how accurately the existence of an ulcer can be recognized from a study of the clinical symptoms alone, I have not pursued this line of investigation closely.

The only difficulty that the author finds in diagnosis is the discrimination between cholelithiasis and duodenal ulcer and he finds comparatively little difficulty here, as in a series of one hundred consecutive operations an error was committed in but three cases. In two gall-stones were present and in one gall-stones and appendicitis.

In regard to the cases where a mimicry of the symptoms of duodenal ulcer is found, in the absence on exploration, of any definite organic lesion, the writer states that all that he is prepared to say with regard to them now is that as his experience has increased, the number of those cases has decreased to the vanishing point.

In the absence of demonstrable lesion, the operation of gastr-enterostomy is not justifiable. It will give no relief and disaster will often follow fast upon it. There has been considerable discussion of the so-called borderland cases and it is interesting to read what the writer has to say. His opinion is that it is only when attacks recur that a diagnosis of chronic duodenal ulcer can confidently be made; it is only when this diagnosis can be made that surgical treatment is necessary. In a first or even in a second attack, medical treatment may be tried. He believes it to be true that the significance



of the symptoms in these attacks has never yet been fully recognized by the physician. It has not been realized that these symptoms are due to a structural lesion. I imagine that all who are competent to decide will agree with these statements. Moynihan does not desire to say that at the very commencement of this disease medical treatment is futile, but he thinks that a better opinion upon the most suitable method of treatment of such cases may be expressed when we possess some more accurate information of the pathological conditions which are present at this stage of the disorder.

It is only when attacks occur that a diagnosis of chronic duodenal ulcer can confidently be made; it is only when the diagnosis can be made that surgical treatment is necessary. Could there be a better summing up of these borderline cases? We think not.

Moynihan refers to what we are just beginning to learn, that is, the extraordinary mimicry of an acute intrathoracic disease to the symptoms and signs of an abdominal disorder. Unless the close simulation of acute abdominal lesion by disease above the diaphragm be remembered, the most expert surgeons may be deceived.

The chapters on the treatment of chronic duodenal ulcer and its complications are just what we would expect from a writer whose style is so clear and whose diction is so apt. They are plain, straightforward statements readily understood and always to the point. The illustrations of the operative procedures add much to the lucidity. A most valuable chapter is added

on the pathology of chronic duodenal ulcer. Here is shown with what remarkable constancy the same portion of the duodenum is attacked by the ulcer. Practically always the same, as in ninety-five per cent. the ulcer lies within the first portion of the gut, that is, within one and one-half inches of the pylorus, but attention is also called to the "tucked back" ulcer, interesting cases in which the pain after food usually comes on in three or four hours instead of two hours as the rule.

The enormous preponderance of anterior over posterior ulcers in point of frequency cannot possibly be due to caprice. There must be some substantial reason for it, but of such reason the author says we have no present knowledge. The book concludes with a lengthy appendix of 147 pages containing a detailed statement of all cases operated upon to the end of 1908, with an analysis and summary, a valuable addition. This book is a necessary part of the equipment of every general practitioner, every internist and every surgeon. It is the work of a master presented in a masterly manner. For those who have not read it, there is a treat in store.

WILLIAM A. EDWARDS.

## NEW CALIFORNIA LICENTIATES.

The following passed the California State Board of Medical Examiners at the August meeting in San Francisco. Eighty-four and one-fourth per cent. passed. This is the largest proportion that has passed for years. We believe the qualifications of applicants has decidedly increased. Of those who passed

twenty-two were Osteopaths, three Homeopaths, one Eclectic and ninety-five Regulars. Of those who failed nine were Osteopaths, three Homeopaths, two Eclectics and sixteen Regulars.

In other words, out of one hundred and eleven Regulars ninety-five passed, sixteen failed; thirty-one Osteopaths, twenty-two passed, nine failed; six Homeopaths, three passed, three failed; three Eclectics, one passed, two failed.

List of those who passed as certified by Dr. Charles L. Tisdale, secretary:

R Abrons, Henry, San Francisco.  
 R Allen, Addie Brown, Los Angeles.  
 R Allen, Kenneth Watson, Hermosa Beach.  
 R Anderson, Carl A., Santa Ysabel.  
 R Anderson, James G., San Francisco.  
 R Anderson, Paul Jerome, Oakland.  
 R Andrews, Howard, Hollywood.  
 O Bondies, Olive Ives Austin, Pasadena.  
 R Bowman, Wm. B., Los Angeles.  
 O Brasher, Ada May, Los Angeles.  
 R Brown, Charlotte M., Los Angeles.  
 R Brown, Thomas Hartwell, Orland.  
 R Bruin, Mackall R., Los Angeles.  
 R Bullard, Chas. Treat, Alameda.  
 R Bullard, Margaret Mead, Alameda.  
 R Byrnes, Ralph L., Monrovia.  
 R Carter, Martin G., San Leandro.  
 R Carter, Ross S., San Diego.  
 O Caryl, Ella Mansfield, Los Angeles.  
 R Chambers, John Davis, Berkeley.  
 E Cheeny, Walter Sylvester, San Francisco.  
 R Choate, Joseph Lynn, Los Angeles.  
 R Clinton, Edwin Morenhout, Los Angeles.  
 R Combacker, Lean Clinton, San Francisco.  
 R Comstock, Daniel Delos, Glendale.  
 R Curtis, Chas. Fred'k., Bath, Me.  
 R Davenport, Annabella Keith, San Francisco.  
 R Diven, Geo. R., Hollywood.  
 R Eede, Jacob W., Minneapolis.  
 O Eklund, Judith M., San Francisco.  
 R Fitzpatrick, Earl Berton, San Leandro.  
 R Forbes, Harvey J., Pasadena.  
 R Frates, Frank Edward, San Francisco.  
 R Gage, Clifton Earl, Los Angeles.  
 R Garrey, Walter Eugene, San Francisco.  
 R Gottschalk, Adolph, San Francisco.  
 R Gundrum, Fred E., Riverside.  
 R Hankin, Chella Mary, Catalina Island.  
 R Hardin, Chas. R., Los Angeles.  
 R Herendeen, Ralph Eugene, Arizona.  
 R Hoare, Harry James, Los Angeles.  
 R Hooker, Marian Osgood, San Francisco.  
 R Horne, F. Lisle, San Jose.  
 R Hutchison, Chas. Wesley, Los Angeles.  
 R Jacqueline, Mary C., San Francisco.  
 R Jardini, Alessandro, Los Angeles.  
 R Johnson, B. Franklin, Jr., Lordsburg.

O Jones, Edward B., Los Angeles.  
 O Joos, Theodore, Los Angeles.  
 H Kergan, John T., Oakland.  
 O King, A. Morgan, San Francisco.  
 R Knox, Chas. Randall, Los Angeles.  
 R Koebig, Walter Christian S., Los Angeles.  
 R Kuder, Wm. S., Vallejo.  
 R Landon, Geo. F. Stirling, San Bernardino.  
 R Lang, John H., Montana.  
 R Leavitt, Edgar Irving, San Francisco.  
 R Legris, John Henry, Oakland.  
 R Long, Alfred Dow, Berkeley.  
 R Long, S. Fred'k., J., San Francisco.  
 R Mackintosh, Wm. C., San Francisco.  
 R Manson, Guy, San Francisco.  
 R March, Irwin Beede, San Francisco.  
 O McDaniel, H. Bruce, Los Angeles.  
 O McNabb, Adeline M., Los Angeles.  
 R McNeille, Lyle Gillett, Los Angeles.  
 R Meyers, Emery Lawrence, San Francisco.  
 O Michael, Anna Robinson, Eureka.  
 R Milliken, Wm. Patton, Oakland.  
 R Mountford, Geo. Thomas, San Francisco.  
 R Mugler, Fred'k. Rolla, San Francisco.  
 R Murry, Olga, Los Angeles.  
 P Myers, Geo. R. B., Sebastopol.  
 R Nuttall, John P., Los Angeles.  
 R Osgood, Warren Decoto, San Leandro.  
 R Paine, John Colwell, Pasadena.  
 O Palmer, E. B., New York.  
 R Parrish, Fred'k. Watson, Riverside.  
 O Perry, David Childs, Los Angeles.  
 R Pond, James Pond, Oakland.  
 R Ransom, Jack Kennedy, San Francisco.  
 R Rasor, Claire, Berkeley.  
 R Ray, James Taylor, San Francisco.  
 R Ray, Lillian E., San Jose.  
 R Reed, Alfred Cummings, Pomona.  
 R Renaker, John R., Los Angeles.  
 O Ring, M. Merritt, Los Angeles.  
 O Risley, R. W., Los Angeles.  
 R Roberts, Jean Margaret, Los Angeles.  
 R Robinson, Wm. K., Los Angeles.  
 R Rodley, Herbert Ellis, Chico.  
 R Rosenkranz, Herbert Augustus, Los Angeles.  
 R Ruble, Wells Allen, Loma Linda.  
 R Ryan, Fred Short, San Jose.  
 O Sanderson, Jas., Los Angeles.  
 R Scudder, John Henry Hedley, Oakland.  
 R Seiffert, John H., San Francisco.  
 R Sinclair, Arthur D., Los Angeles.  
 R Slabaugh, Warren Henry, Los Angeles.  
 O Snowden, Cora, San Francisco.  
 O Splaine, David, San Diego.  
 R Stadfield, Clayton G., Los Angeles.  
 R Stewart, Elsie Gertrude, San Francisco.  
 O Stewart, Norman Guy, Los Angeles.  
 R Sundstrom, Sigfrid, Oakland.  
 O Talbot, John, Oakland.  
 R Thomas, Jerome Beers, Los Angeles.  
 O Thompson, Wm. Howard, Riverside.  
 R Thornton, Andrew J., San Bernardino.  
 R Thornton, James, Los Angeles.  
 R Travis, Hartman P., Los Angeles.  
 R Tupper, Roland Beatty, San Francisco.  
 R Tyler, Leatha Ruth, San Francisco.  
 R Verrier, Jean A., Los Angeles.  
 H Wayland, Clyde, San Jose.  
 R Weber, Arthur L., Cucamonga.  
 R West, Fred Donnell, Los Angeles.  
 O Whisler, John L., Los Angeles.  
 O Wilson, Selma Cecelia, Redlands.  
 R Wimp, Wm. H., Los Angeles.  
 H Winters, Walter Payne, San Diego.

**THE BRITISH ASSOCIATION FOR  
THE PREVENTION OF TUBER-  
CULOSIS—A LETTER FROM  
OUR DELEGATE, DR. C. C.  
BROWNING OF MON-  
ROVIA.**

The following very interesting and valuable letter has been received by the editor from Dr. C. C. Browning, a member of the Executive Committee of our State Tuberculosis Association and formerly one of the medical directors of the Pottenger Sanatorium of Monrovia:

THE NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION AND OTHER FORMS OF TUBERCULOSIS (Great Britain) held its ANNUAL MEETING and CONFERENCE in EDINBURGH, July 1 to 9, 1910. Chairman of meeting, the Rt. Hon. Lord Balfour. President of Conference, Prof. Oaler, M.D., F.R.S., Oxford. Each evening at 8 p.m. during the time lectures were delivered by prominent members of the profession, to which the public were invited. These were well attended throughout and full accounts of the proceedings of the meetings and reports of the lectures were published in the daily papers, showing the great interest taken in the subject.

The afternoon of the first day the Tuberculosis Exhibition was opened in the building in which the meetings were held by Her Excellency the Countess of Aberdeen. The exhibition was sufficiently extensive that it must have been a great educational factor as there were constantly many persons in the exhibition rooms who were interested. However it did not prove as valuable as it should on account of the lack of competent persons in attendance who would frequently explain the exhibits.

The exhibit from Ireland was of great interest as it showed the character of the practical and vast amount of work which has been done there within the past few years and the results accomplished. There was a young lady in charge of this exhibit who was thoroughly familiar with the work and also enthusiastic and who appeared to me to accomplish more than any other branch of the entire exhibition. This section is worthy of extended notice, but I will pass it for the present.

The afternoon of the third inst. the formal INAUGURATION of ROYAL VICTORIA HOSPITAL FARM COLONY at Springfield was held. This is the third link in the chain for dealing with tuberculosis in Edinburgh, which has one of the most perfect organizations for this work, under the able direction of Dr. Philip aided by Dr. Lyall and others.

The first link may be described as the dispensary with its corps of physicians and visiting nurses; second, the Sanatorium, located in the edge of the city of Edinburgh; the third, the farm where those who have been at the sanatorium under treatment are sent during convalescence. These all being under one management the entire work is carried on without duplication.

The third inst. (Sunday) special service was held at 3 p.m. Prof. Osler delivered an excellent address, his subject being, "Man's Redemption of Man." This was followed by a memorial service to the memory of Prof. Robt. Koch, the opening address being delivered by Dr. Hermann M. Biggs of New York, in which he ably reviewed the work of the great teacher.



Monday, 4, the morning was devoted to the consideration of "*The Avenues of Infection in Tuberculosis*"—discussion opened by Prof. Sims Woodhead, Cambridge.

He believed most cases were infected through inhalation directly into the lungs and that the lungs were the organs most easily attacked. That children under five years of age were more frequently sufferers from pulmonary tuberculosis or from infection through inhalation than had been supposed. He believed that a small proportion of cases were infected through the alimentary canal. To accomplish this the mucous membrane must be injured and the dose of bacilli relatively large. Infection of the lungs through the tonsils he thought infrequent if at all. He also expressed the belief that most all people who lived to the age of 45 years were infected.

The discussion was participated in by Prof. Adami, Montreal, Prof. McWeeney, Dublin, and others, most of whom expressed the opinion that infection was direct in the lungs by inhalation, in the vast majority of cases, although some mentioned the tonsil as a possible or frequent route. Dr. Ritchie, Edinburgh, called attention to the back as well as the forward flow of the lymph and expressed the opinion that through this channel it was possible to infect the lungs through the tonsil.

Prof. Adami reported the results of his examination of 150 children between the ages of seven and sixteen years in the Canadian Government School for Red Indian Children. He found all of these children infected and believed

many were of post-nasal origin. Milk does not enter into their food. Open-air schools were being considered. The consensus of opinion expressed was mostly the belief of direct infection by inhalation—a few accepted the tonsil as a not infrequent route, while very few looked with favor on the theory of infection by injection except in very rare cases, which were confined to the intestines and mesenteric glands. The fact of pulmonary infection by means of introduction of bacilli in distant portions of the body received practically no consideration, except through the tonsils.

The afternoon was devoted to the consideration of "*Preventive Measures and Administrative Control of Tuberculosis*."

Dr. Hermann M. Biggs of New York opened the discussion. He contrasted the work of Edinburgh—which had begun with the establishment of the Dispensary and from this had elaborated a scheme for administrative control—with that of New York, where the initiative was taken by the sanitary authorities who had supervision of the work throughout.

He went into detail of the work in New York, elaborating it step by step, beginning with the compulsory reporting, which resulted last year in 42,000 cases being reported, 28,000 of which were reported for the first time. The detail of sanitary police, employment of waiting nurses, passage of tenement-house laws, school inspection, establishment of open-air schools, day and night camps, and books, and sanatoria were discussed, with measures and cost for maintenance. He stated that the mor-

tality had decreased in New York City about 40% since 1894.

Dr. Leslie Mackenzie considered the work done in Scotland, which had been based on the plan of the work done in Edinburgh. The Public Health Act of Scotland was passed in 1907. This leaves a great deal of discretion with the local authorities. As a result 74 local authorities have adopted compulsory notification—bring about 50% of the inhabitants of Scotland under this regulation.

Dr. Stafford of Ireland sounded a note frequently heard, urging against the state taking up the work as it could best be done by voluntary workers—which is in contrast with the work done in New York.

Dr. Hope of Liverpool stated that as a result of the efforts in Liverpool the death rate had been reduced from 2.1 per 1000 among males and 1.5 per 1000 among females in 1895, to 1.8 and 1.1 per 1000, respectively, last year.

Other speakers continued the discussion along similar lines, showing equally encouraging results in proportion to the effectiveness with which measures had been carried out.

Tuesday, 5th inst., the forenoon session was devoted to "The Incidence of Tuberculosis in Childhood."

The discussion was opened by the reading of a paper prepared by Dr. Hamburger, Vienna, by Dr. Phillips—Dr. Hamburger being prevented from being present on account of illness. This was by far the most carefully prepared paper, from a scientific standpoint, presented to the Conference. His conclusions were based on extended research

which had apparently been carefully made and deductions accurately drawn. He concluded that nearly all persons of fourteen years of age in Vienna were tubercular. That tuberculosis in childhood frequently runs its course without giving rise to symptoms. That the majority of children in Vienna were infected after five years of age and showed few or no signs of the disease at this period. That most persons became tubercular in childhood, the tuberculosis remaining latent. This latency is especially apt to occur if the infection occurs later than the fifth year. That the prognosis of tuberculosis in childhood becomes more favorable the older the person is at time of receiving the first infection. This paper was founded on results of tuberculin tests, physical examinations and autopsies.

Dr. J. E. Squire, London, considered the relation of the tuberculous child and the school. Only "open" cases which are infrequent among children need be excluded from the school on account of the safety of others. Frequently the sanitary condition of the school is far better than that of the home. These questions must be carefully considered in individual cases.

Regarding the frequency of tuberculosis among children Dr. Squire's conclusions were quite at variance with those of Dr. Hamburger. Dr. Squires ignores entirely the value of the tuberculin test, relying on physical examination. He reported having examined 672 children in one of the schools in one of the poorer sections of London and found less than 1% tubercular. From his own description of his examinations,

I was impressed with a lack of thoroughness and for that reason would be slow to accept the accuracy of his findings.

Dr. Sherman of Edinburgh stated that he believed children are to some extent infected with bovine tuberculosis. He also called attention to the fact that of autopsies on 420 tuberculous children, 308 showed affected lymphatic glands.

Dr. Carnegie Dickson, Edinburgh, stated that at the Sick Children's Hospital more than three-fourths died from tuberculosis, and that the majority of these were abdominal cases. He believed infected milk to be the cause of infection in most of these cases. Continuing he said that Edinburgh and Glasgow are perfect plague spots of tuberculosis, so far as infantile mortality is concerned.

Several other speakers discussed the question along similar lines, many referring to Edinburgh and Glasgow as having the highest infant mortality due to tuberculosis of any cities, and also referred to the prevalence of tuberculosis among dairy cattle. Their whole fear of the tuberculous cow appeared to be if the udder was infected as no mention was made of the infection of milk by means of fecal matter containing bacilli getting into the milk, and it remained for Dr. Row of Liverpool to give formal expression regarding this when addressing a public meeting on Wednesday evening, when he stated, "That the milk from a tuberculous cow was not dangerous if there was not tuberculosis of the udder." I was informed about one-fourth of the cows of the vicinity of Edinburgh which are

found to be suffering from tuberculosis have tuberculosis of the udder.

The last meeting of the Conference proper was held 3-5 Tuesday p.m., when the subject for discussion was "The Working Man in Relation to Tuberculosis." This discussion was opened by Mr. Garland of London. He stated, science had pointed out the way to abolish tuberculosis. This presupposed the abolition of poverty. It is now an economic question. Science had found the method; it is now for society to find the money. He said it resolved itself into three things—education of the whole people in the essentials of prevention; the curative treatment of early and the segregation of advanced cases. He stated, the loss sustained by the working class of England, Scotland and Ireland was more than £3,000,000. The poor are practically helpless in the fight.

Following discussion, which was participated in by several persons emphasizing the different points, a resolution was adopted favoring a scheme by the government for invalidity insurance.

#### SOME PERSONAL IMPRESSIONS.

The name of the person to open discussion was printed on the program. Each, with the exception of Dr. Biggs of New York, had a paper written, which consumed from forty minutes to one hour to read. While no other names appeared on the program it was evident that those expected to take part in the discussion had been invited to do so previously, as each had a paper prepared, which they read, only occasionally some one making extemporaneous remarks. These papers generally consumed from twenty-five to forty-five



minutes, although it was stated participants in discussion should have ten minutes.

This selecting of speakers beforehand doubtless has some advantages, but also has disadvantages, as much of the same ground was gone over by each one and much time wasted. I had not expected the "sturdy Scotch" to abound in circumlocution to such an extent. It was the greatest I ever heard in a medical society. The plan was not popular with the mass, although apparently quite so to the favored few.

The forenoon and early portion of the afternoon of the first day the house was

filled. Several times persons attempted to obtain the floor who had not been previously invited to speak. In the afternoon some insisted on knowing whether or not there would be opportunity for general discussion, and not obtaining satisfactory reply, about one-fourth left the hall, which was not again well filled.

At the last session persons who wished to speak were invited to send their cards to the chair, but only a few availed themselves of the opportunity. The discussions generally lacked vigor and spontaneity.

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## EDITORIAL NOTES

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Dr. A. D. Bechtal of Tucson has moved to Beaumont, California.

Dr. John P. Nutall, formerly of Kentucky, has located in Anaheim.

Dr. G. K. Abbott is making extensive improvements at Loma Linda Sanatorium.

Dr. A. J. Elliott has incorporated a company to build a general hospital in San Diego.

Santa Barbara is taking active steps towards raising funds for a new Cottage hospital.

Dr. John R. Pearson, formerly of Bedford, Indiana, has opened offices at McCabe, Arizona.

Dr. Harry T. Southworth of Prescott, has returned from a short visit to Baltimore, New York and other Eastern cities.

Dr. J. A. Champion of Colton attended the conference of railroad physicians, San Francisco.

Dr. P. O. Sundin, Los Angeles, has offices with Dr. Edward J. Cook, H. W. Hellman Building.

Dr. Robert V. Day of Los Angeles and Miss Elizabeth Noran of Chicago were married August 8th.

Dr. W. R. Moloney of Los Angeles was recently appointed a member of the Board of Lunacy Commissioners.

Dr. and Mrs. Walter Deering have returned from their honeymoon trip and are now located in the Hotel Hollywood.

Captain Clarence L. Cole of Whipple Barracks, Prescott, Arizona, has been ordered to Denver for duty. Arizona thus loses a high-minded, able physician who is imbued with the true scientific spirit.

Dr. C. P. Thomas, formerly of Spokane, Washington, has located in Ocean Park and expects also to have an office in Los Angeles.

We have received the following reprint: What May Be Done to Improve the Hygiene of a City Dweller, by S. Adolphus Knopf.

Dr. A. A. Libby has gone east and will spend a few weeks in New York City and then take a rest at the Virginia Hot Springs.

Dr. F. M. Pottenger announces that hereafter he will be in his Los Angeles office daily instead of three times a week as heretofore.

Wanted: An associate in research work; a student skilled in differential leucocyte counting preferred. For particulars phone F9255.

Dr. R. M. Dodsworth, who belongs to one of the pioneer families of Los Angeles, is Medical Director of the Samuel Merritt Hospital in Oakland.

The daily papers announce that a new fifty-thousand-dollar hospital, to be known as the Cottage Hospital, is to be erected in Santa Barbara.

Dr. Gayle G. Moseley of Redlands is taking an active interest in the anti-tuberculosis league, of the executive committee of which he is a member.

Dr. W. W. Hitchcock, Dr. W. Jarvis Barlow, Dr. Frank Gordon and Dr. H. A. Rosenkranz of Los Angeles have all been guests at Idyllwild during the summer.

Dr. John Hagan of Bisbee has moved to Wichita, Kansas. Mrs. Hagan and the baby are spending the summer in Prescott, and will join the Doctor in Wichita early in the fall.

Dr. F. D. Fairchild of Central avenue, Los Angeles, has returned from a six weeks vacation to Honolulu. During his absence Dr. E. J. Johnston of South Pasadena had charge of his practice.

The *Ventura Free Press* says that the Elizabeth Bard Memorial Hospital of Ventura will probably close its doors owing to lack of patronage. Public-spirited citizens of Ventura are taking active steps to endow the hospital and keep it open.

Dr. John B. Roberts of Philadelphia was recently called to Los Angeles to do some plastic reconstructive work on a baby that was born deficient. He operated at the California Hospital in the presence of quite a number of Los Angeles surgeons.

Dr. Charles Lee King of Pasadena is enjoying a visit from his distinguished brother Henry Churchill King, president of the historic Oberlin College. President King is on his way home from China. He takes an optimistic view of the future of that country.

Dr. Chalon Guard Campbell of San Bernardino died August 22nd after a lengthy illness. He was born in Illinois in 1849 and graduated from the St. Louis Medical College in 1875. He began practice in San Bernardino in 1876 having practiced in that one town for thirty-four years.

Dr. E. H. Wiley, one of the brightest young surgeons of Los Angeles, has located in Hermosillo, Mexico. Dr. Wiley will be associated with Dr. J. C. Burton, who already has a fine practice in the Mexican city. They keep several nurses, who graduated from the California Hospital, busy.

We have received "A Report of the Last Meeting of the Council of Medical Education of the American Association, With Comparisons of Conditions Now Existing in California. Statistics From Medical Schools in the State of California. By Dr. W. Jarvis Barlow, A.B., M.D., Los Angeles. Reprint from the *California State Journal of Medicine*, June, 1910. This is a valuable report.

At the annual meeting of the Los Angeles Symposium Medical Society Dr. E. C. Moore was elected president; Dr. McNab, vice-president; Dr. Francis L. Anton, secretary and treasurer. This is one of the best scientific societies. Its membership is limited to thirty and there is always a waiting list.

The road from Idyllwild to Banning is completed and makes a magnificent scenic trip for automobiles. The ideal tour is to go from Los Angeles to Banning, then to Idyllwild, then back to Los Angeles by the way of Hemet and Ferris and Riverside. While the hotel at Idyllwild is closed there is a cottage boarding-house open the year around.

Dr. R. E. Herendeen, a graduate of the class of '09 of the College of Physicians and Surgeons of the University of Southern California, of Los Angeles, has been practicing in Bisbee, Arizona, for the past year, where he was recently elected secretary and treasurer of the Cochise County Medical Society. During his summer vacation Dr. Herendeen took and successfully passed the California State Board.

The following reprints of papers by Dr. George Dock have been received: (1) A Note on the Ipecac Treatment of Amoebic Dysentery. (2) The Advantage of Using Potassium Iodide Until We Have Something Better. (3) Operative Treatment of Cirrhosis of the Liver. (4) The Importance of Recognizing Cases of Pellagra. (5) Address Made at the Opening of the New Medical Amphitheater and Clinical Laboratory of the Hospital of the University of Pennsylvania. (6) Spelling as an Index to the Preparation of the Medical Student.

THE SOUTHERN CALIFORNIA PRACTITIONER, Los Angeles, Cal.—Gentlemen: There has been a report circulated to the effect that I am starting or contemplating starting a sanatorium for the

treatment of tuberculosis at Tucson, Arizona, as a branch of the Pottenger Sanatorium at Monrovia, California. This has come to me from several sources and it has been published in some journals. I have no such intention and have never given such a project a moment's consideration. My entire time and energy will be devoted hereafter as heretofore in conducting of the Pottenger Sanatorium at Monrovia, California. Will you kindly publish this, and oblige,

Yours very truly,

F. M. POTTENGER.

Reginald Weber Fitz, M.D., LL.D., Hersey professor of the Theory and Practice of Medicine in Harvard University, will deliver the Lane Medical Lectures for 1910. The course will consist of six lectures entitled, "A Consideration of Some Features of the Lymphatic System," including the discovery of the lymphatics and the recognition of their importance. Status lymphaticus and Thymus Hyperplasia. Lymphangiectasis and Lymphangioma. Pseudoleucaemia, Hodgkins' disease and Lymphosarcoma. The lectures will be given in Lane Hall, corner of Sacramento and Webster streets, San Francisco, at 8:30 p.m., on September 12th, 13th, 15th, 16th, 19th and 20th. These lectures are intended for the medical profession, and all are invited to attend.

Dr. Winslow Anderson of San Francisco writes from London as follows: "I shall return from Europe about the end of the year or the first of next. I have now been in London going on three weeks, witnessing the masters of surgery at the various hospitals. As a graduate of St. Barts and a member of the Royal College of Physicians, I am no stranger to the excellent work of clean-cut English surgery. I have already witnessed operations at my old College Bartholomew by Mr. D'Avery



Power, at the Samaritan Free Hospital, by Mr. John D. Malcom; at the Royal Free, by Mr. James Berry; at Charing Cross Hospital, by Mr. Wallis and Dr. Ranthe; at Guys Hospital, by Mr. Arbuthnot Lane; at the Middlesex Hospital, by Mr. Bland Sutton. I am now waiting to witness operations by Sir Victor Horsley, Sir Watson Cheyne and Mayo Robson, also Mr. Taggart. I find the British surgeons most conservative, capable and competent. As a rule the gynecologists operate at nine in the morning, and the general surgeons at two in the afternoon. For anesthesia, ether and chloroform are employed or a mixture of two parts of chloroform and three parts of ether, finds favor with some anæsthetists. I find the hospitals fully equipped and largely attended during the summer vacation by medical men from America and the Continent. I shall remain in London for some weeks longer. I have already had the honor of being elected a member of the Authors' Club of London, and contemplate attending the British Medical Association which

meets here next week." The following picture taken at 420 Strand indicates that the doctor is in excellent health.



*Sincerely yours  
Winslow Anderson*

## MISCELLANEOUS

### SKUNK HYDROPHOBIA—FATAL CASE.

Dr. E. S. Godfrey yesterday received a letter from Dr. George P. Sampson of Winslow, reporting the death of Frank A. Allen of that town, of hydrophobia or rabies, due to a skunk bite.

Allen was bitten about two months ago while in the mountains about fifty miles south of Winslow. He paid no attention to the wound and did not regard it seriously. Nothing unusual seemed to take place until about June 24, when the preliminary symptoms of hydrophobia became apparent. Two days later, June 26, Dr. Sampson saw Allen for the first time and found him

with a fully developed case of rabies. He died that evening. Dr. Sampson writes that it was a typical case with all of the prominent symptoms of the disease present.

This incident is a particularly pertinent one in a discussion of the question of hydrophobia in skunks, as many people, including some physicians, refuse to believe that the skunk is more likely to be infected with that disease than any other animal. When the numerous cases of persons bitten by skunks and saved by treatment are cited, the reply is that in many of them there would probably have been no evil results even had no treatment been

given other than the usual dressing of the wounds. In many cases this can not be contradicted, for, the patients recovering, there is no proof that they were ever infected except the proof given by the institute physicians, which might not be accepted in view of their personal interest.

But this case was that of a man who seemed to belong to the unbelieving class. He had no fear of rabies, did not regard the bite seriously and did nothing to counteract possible poison. In due time the disease developed and also in due time, the man died.

The case is quite similar to that of J. W. Scantlin, who died in Prescott in October, 1908. Scantlin was a trapper and lived in the hills of Yavapai county. He had a battle with a skunk and was badly bitten. However he was not at all frightened, did not believe the stories of the danger of a skunk bite, merely gave his wounds local treatment and continued his regular activities. Nothing occurred to give him concern for a month and ten days. Then he began noting disquieting symptoms, went to Prescott, and three days later died in most horrible agony.

It seems that the wound heals as fast as any other and that it usually takes weeks for the venom to develop rabies, but when the disease does become apparent, its work is swift and terrible. It is the usual custom these days, and seemingly a very proper one, to treat all skunk bites as fatal infection and secure treatment as quickly as possible. That those treated recover is not half as convincing evidence as the other fact that all those bitten who take no treatment die, so far as can be learned. If there are any considerable number who have been bitten by skunks, took no treatment, and felt no ill effects other than the wounds, they would be doing humanity a great favor to come forward and say so. The *Republican* has a record of about twenty cases of

skunk bite in this territory, in its clipping library, and probably twice that number have occurred in the last few years, the rest having been overlooked by the scissors man. But of the cases on file, every one has been fatal unless treatment was secured and only one is recalled where the treatment was not effective, and in that instance, a child, the patient did not follow instructions after being discharged.

Also, it is a very popular theory among those who believe in the skunk as a disseminator of rabies that there is only one of the many varieties of that animal which spreads the infection. Some physicians, however, while disavowing belief in the skunk as more apt to be a purveyor of rabies than any other animal, say they have known disastrous results from the bites of skunks of various varieties, large and small. Their theory is that the skunk which conveys the poison is itself a sick skunk and its bite is like that of a mad dog, which everybody knows does not prove that all dogs are mad. But it seems queer that no one ever hears of a person being bitten by a well skunk and until such evidence is forthcoming the cautious man will take it for granted that all skunks are sick of rabies.—*Phoenix (Arizona) Republican*, July 12, 1910.

#### TO REMOVE PLASTER OF PARIS CASTS.

The *Medical Times* gives the following method of removing casts: Mark a line, with a lead pencil, on the cast.

Along this line apply a little cotton or a thin layer of cotton-wool and soak the same with peroxid of hydrogen, the wool being about one-half inch wide. In a short time the plaster will be soft enough to be cut through with an ordinary knife or a pair of scissors. Vinegar or bichlorid solution may be used instead of the peroxid of hydrogen.

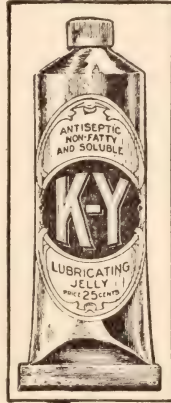
## MEDICAL STUDENTS AT OXFORD.

Lord Curzon, Chancellor of the University of Oxford, recently said in the course of an address:

"Very few people outside of the colleges were aware of the fact that Oxford was once the home of the school of medicine and that it had turned out some of the most distinguished physicians who had cast lustre upon the English name. Some of these men occupied imperishable niches in the temple of fame; and standing there, by the side of the Warden of All Souls, he felt bound to point out that three, at any rate, of the most illustrious of the school he had mentioned were Fellows of All Souls. What a range of accomplishments those great men had; what a splendid versatility some of them had shown! Yet what limited resources, in books and otherwise, were at their disposal. They had none of the mechanism of modern research. When they remembered all that they could not but be startled at the work that they did. The first of those names was mentioned in passing, by the chairman; referred to Linacre, great as a scholar, great as an ecclesiastic, great as a physician, whose name still survived in the splendid benefaction that bore his name in the University of Oxford. It was 420 years since Linacre became a Fellow of All Souls, and 390 years since he was elected the first president of the Royal College of Physicians in London. Then there was Thomas Sydenham, the friend and contemporary of Locke, whom they all remembered as a philosopher, but few recollected as a physician—Sydenham, who was described as the father of practical medicine. The third of the All Souls men of whom he was speaking was Wren, great as an anatomist and as an astronomer even before he was great as an architect. After those three men there was Harvey, of whom few recollected

## "The Passage of an Instrument

of any kind into the healthy urethra," says Sir Henry Thompson, "must *per se* be a source of irritation . . . Of course, the amount of irritation will depend in great part on the manner in which it is passed."



## K-Y Lubricating Jelly

reduces the *discomfort* by improving the *manner* of urethral instrumentation. Its *emollient* action also aids in subduing existing irritation in the prostatic invalid.

K-Y contains *No Formaldehyde*.

*In collapsible tubes. Sample on request.*

**VAN HORN & SAWTELL**  
NEW YORK and LONDON, ENG.

that he was the head of an Oxford College. Finally there was Radcliffs. He mentioned those names merely to indicate what a part the Oxford of the Tudors, the Stuarts, and the early Georges played in the history of medicine, and how venerable and illustrious were the traditions which they were carrying on at the present day. About the middle of the last century the condition of science at Oxford might almost be compared to that of the Dark Ages, and the attitude towards medical science in particular, and to science in general, was one of suspicion if not of active hostility. In 1850, when the first commission was about to commence its labors at Oxford, there was not a single scientific laboratory in that University, and had the whole of the medical students in Oxford at that time



been sent down, they could have been taken to the station, if station there was, in a single four-wheeled cab. But even when the night was darkest, the dawn was nigh; and he did not think that there had been any more dramatic, more inspiring, or more creditable page in the history of learning than the steps by which science had fought its way back into Oxford until, at the present moment, it sat enthroned alongside the humanities and had a crown of equal authority and prestige upon its brow. Instead of six students, there were now seventy-five who frequented the laboratory of Professor Gotch, and at the present moment there were as many as 120 medical students passing through the various stages of their education at Oxford." (Cheers.)

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#### DR. BUELL'S ILLNESS.

*The Graphic* of Los Angeles says: "Friends of the late Dr. E. C. Buell, who died recently at Genoa, following an operation for appendicitis, are anxious to get all the information they can concerning their friend's closing hours. They will, I know, appreciate the courtesy of his executor, Mr. Fred Walton, in letting me print the following letter, which he received from Mr. Koepfli this week. It is dated Genoa, July 23, and reads:

"My Dear Walton:—Our good friend Buell has been in hard luck ever since we were in Japan, nor has he been in good health since. He left us in Venice nearly four weeks ago to go to Monte Carlo. He got no further than here. After eating a light supper he sent for a physician in the middle of the night, and has been sick ever since. About two weeks ago they decided that he would require an operation for appendicitis. He wrote me at Munich and arranged with me that I should meet him at Milan and take him to Berne, Switzerland, to an operator in whom he had

faith. But two weeks ago he was taken worse and on Wednesday, July 13, he telegraphed me that he would have to be operated upon here. I took that night's train and got to the hospital here Thursday evening, the fourteenth, just as they had put him back to bed after operating. Now his operation is doing all right, but he is not. He is very weak, his heart and stomach both keep acting badly, he is very miserable, and the doctors won't say what his chances of recovery are. Since yesterday noon he has shown improvement, but he is not out of the woods by any means. It goes without saying that all is being done for him that can be, and I really believe that he has fallen into very good and competent hands, both as regards the nurses and the surgeon and physician. It is hard to see him in so sore a plight as he is in. I left my family at Munich, pass my days at the hospital and night here. He is very hard to take care of, loses patience with the nurses and finds fault because they do not take his orders, but follow the surgeon's instructions. He will, if he does get well, be a long time doing it, and the remainder of his trip at best will consist in going to some place to recover his strength. I have tried to give you full information so that you can inform friends regarding him. I will hope for the best."

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#### THE DOG AND TAPE WORM.

It is said that the dog, from eating raw meat, gets the tape worm in its larval state from the beef, and within the dog it develops the adult worm. From intimate association of the dog with human beings the eggs of this worm infect the child or the man. It is said tape worm is very common in Lapland, where dogs and men live in close intimacy, and that one form of tape worm is found only in children, due to the fact that dogs caress them with their tongues.

## BOOK REVIEWS

**HOOKWORM DISEASE**—Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis and Treatment. By George Dock, A.M., M.D., Professor of the Theory and Practice of Medicine, Medical Department Tulane University of Louisiana, New Orleans, and Charles C. Bass, M.D., Instructor of Clinical Microscopy and Clinical Medicine, Medical Department, Tulane University of Louisiana, New Orleans. Illustrated with forty-nine special engravings and colored plate. St. Louis: C. V. Mosby Company, 1910.

No more striking example of the transitory state of medical knowledge can be advanced than the proof brought within the last few years, not only that Hookworm exists as human parasites in a large part of the country, but that they may with reason be looked upon as among the most important causes of diseases of the South in extent, in destruction of life and in leading the physical and mental degeneration.

While the Southern States is the area most widely infected with Hookworm disease, the latter has been found in many Northern States, and has been, as is well known, a serious menace to miners, tunnel workers and others engaged in occupations of the soil in nearly all European countries for many decades.

The recognition of the pathologic and economic importance of the Hookworm in the United States is comparatively recent. The advent of the present volume is therefore timely, and should be widely read.

The geographic situation of California and other Pacific States is a menace to its population. Oriental diseases will in a large degree find their portals of entrance through our doors. It therefore behooves the medical profession of this region to make a study of the Hookworm and allied diseases to a degree not required by the profession in other states.

The present monograph covers the subject of Hookworm Disease from every standpoint, and with that thor-

oughness which characterizes all of Dr. Dock's monographs. His pioneer work in malaria in this country makes it seem fitting that one of the first monographs on Hookworm Disease should come from his pen. His knowledge of such diseases and his wide experience adds to the authoritativeness of the volume.

The paper, type and illustrations are excellent; the index full and complete, and the subject matter presented in a style that bears not only the stamp of scientific reasoning and original work, but that is also as fascinating as a novel.

DUDLEY FULTON.

**MEDICAL MEN IN THE TIME OF CHRIST.** By Robert N. Wilson, M.D. Philadelphia. The Sunday School Times Company. 1910.

It is unfortunate that in the modern crowded medical curriculum there is so little time to spare to the consideration of the history of medicine. Wilson has done a service in bringing out this small volume which takes into consideration of the medical history, particularly before and in the time of Christ. The book might well find a place on the reading table of the reception room of every physician.

**HAND BOOK OF COSMETICS.** By Dr. Max Joseph, Berlin. Authorized English Translation. Revised from the Third German Edition, 12 mo., 151 recipes, cloth, prepaid, \$1.00. E. B. Treat & Co., Medical Publishers, 241-243 West 23rd st. New York.

The author states that the subject of Cosmetics has been too long neglected by the medical profession and on that account has unfortunately passed into the hands of unqualified persons. He contends that it is of importance that the physician should acquaint himself with the subject in its main features, and that to supply the needs along this line, it is better to have a book such as

this, than to be forced to listen to quack beauty specialists and the like, in order to become acquainted with the Cosmetic Art. It is certainly a fact, that there is a demand on the part of many practitioners for a fuller and a

more scientific knowledge of the hygiene of the skin and hair and the treatment of their minor affections. This little book is eminently a practical one and the methods and prescriptions given are sure to be of real value.

## THERAPEUTICAL HINTS

### THE DOSE OF CODEIN.

Fraenkel (*Munch. Med. Woch.*) claims that codeine must be given in larger doses than is generally used in order that the full effect may be obtained, as codeine is from ten to twenty times less powerful than morphine. The proper dose should be two-thirds or three-fourths grain, and this amount may be given three or four times a day without any evidence of habit formation. The single maximum dose permissible is one and one-half grains and maximum daily dose is four and one-half grains. For children the daily dose may be as follows:

- 4 years of age..... 1-6 grain
  - 6 years of age..... 1-3 grain
  - 8 years of age..... 2-3 grain
  - 12 years of age..... 1¼ grains
- Meyer Brothers Druggist, July, 1910.*

For over 25 years Hayden's Viburnum Compound has proven its efficacy in dysmenorrhea, amenorrhea, menorrhagia, metrorrhagia and irregularities incident to the menopause.

*Argument.* The therapeutic value of Hayden's Viburnum Compound has built up an enviable reputation for its efficiency, hence its many substitutes. Why let a druggist put up something inferior upon your prescription for the original H. V. C.?

As a preventive of and cure for nausea while traveling by railroad or steamboat, and for genuine *mal de mer* or sea sickness, antikamnia tablets are unsurpassed.

Clinical experience with Hagee's Cordial of the Extract of Cod Liver Oil Compound justifies the assertion that its therapeutic indications are precisely those which belong to cod liver oil in its natural condition. Oil in any form will not be tolerated by the gastric mucous membrane in many of the cases for which cod liver oil is indicated. Hagee's Cordial is free from the taste and smell of oil, and is acceptable to the most fastidious taste.

### A NEW PREPARATION FOR HAY FEVER.

Dr. J. E. Alberts, of The Hague, has directed the attention of the medical profession to a new combination which is astringent and locally anesthetic in effect, but which is non-toxic and devoid of the ill effects of cocaine. The new combination contains one part to twenty thousand (1:20,000) of adrenalin chloride and 10 per cent. of para-amido-ethyl-benzoate, made up into a bland ointment, to which has been given the name of Anesthone Cream.

When applied to the mucous membrane of the nares Anesthone Cream has a persistent anesthetic effect which affords marked relief in hay fever. Inasmuch as para-amido-ethyl-benzoate is only slightly soluble in aqueous fluids, its anesthetic action is prolonged. It does not have the poisonous effect of cocaine upon the protoplasmic element of cells, nor does it depress the heart. Furthermore, there is no tendency to "habit" acquirement.



In a tabulated series of cases collected by the Department of Experimental Medicine of Parke-Davis & Company a very large proportion were very much benefited.

Anesthone Cream is supplied in a collapsible tube with an elongated nozzle. A portion of the cream about the size of a pea is to be applied to the nasal mucosa three or four times a day, or more frequently if necessary, including the time of arising in the morning and retiring at night.—*Therapeutic Notes.*

#### MEDICAL, GYNECOLOGY.

The rapid rush for the knife and its indiscriminate use in many gynecological cases where local or internal treatment should have been first considered is causing the pendulum to swing in the direction of conservative gynecology. Uterine bleeding due to relaxation of the tone vessels and uterine muscular walls can be relieved by promoting tone to these parts through the administration of Hayden's Viburnum Compound, thus making curettment with its attending dangers unnecessary. The same treatment can be used to advantage in uterine congestion with relaxation of the round ligament and other supportive structure. "H.V.C." normalizes pelvic circulation and imparts tone to the uterus and its adnexa.

#### CALIFORNIA HOSPITAL ALUMNAE ASSOCIATION.

The regular monthly meeting of the California Hospital Alumnae was held at the Directory rooms August 29, 1910.

Miss Barna expects to give up private nursing and will enter the office of a Pasadena physician.

Miss Lena Merck, '03, is recovering from an attack of typhoid fever, having spent four weeks in the hospital.

## Svapnia

**Purified Opium  
With a Fixed  
Morphine Standard**

SVAPNIA possesses the following advantages over ordinary opium:

Freedom from mechanical impurities; elimination of undesirable alkaloids; definite morphine content (10 per cent); lessened tendency to nausea and vomiting; increased palatability; uniform results.

The adult dose of Svapnia (1 to 2 gr.), as well as the indications for its use, are the same as opium. It is in the form of red-brown scales, soluble in water with turbidity, and is best administered in capsules, pills or powder form.

Sold by druggists generally.

**THE CHARLES N. CRITTENTON CO.**

Sole Distributing Agents,  
115 Fulton Street, New York.

*Sample and literature on application.*

Miss Dora Graves, '04, has taken charge of the operating room of the Copper Queen Hospital in Bisbee, Ariz.

Miss Sue Miller, '06, was married to Dr. J. C. Burton, on July 21, 1910, in Hermosilla, Mexico, where they will reside.

Mrs. June Hardison Stevens, '04, is recovering from a surgical operation recently performed in the California Hospital.

Miss Helen Franklin, '05, and Miss Westover, '05, are doing hospital nursing in Hermosillo, Mexico.

Miss Elizabeth Barbor, '04, is doing private nursing in the same city.

Miss Annie Navel leaves for South Dakota on Sept. 3 to spend a year.

Miss Hammett, '10, has accepted a position in the hospital at Morenci, Ariz.

## IDYLLWILD.

O charming, restful Idyllwild,  
Thou art Dame Nature's favored child.  
Thy towering pines and peaceful glades,  
Where sunlight into twilight fades;

Thy mountain stream that. murmuring,  
flows

Through tangled wreaths of sweet  
wild rose,

And sparkles, with a silver sheen,  
O'er pebbly bed—mid banks of green;

Thy rugged peaks that circle round  
And seem to guard enchanted ground,  
At morning, veiled in misty blue,  
At evening, bright with sunset hue;—

Scenes painted by the master-hand  
And scarce excelled in any land.  
Long may our people gather here  
And all thy countless charms revere!

MRS. NANNIE HENRY JOHNSON.  
Idyllwild, San Jacinto Mountains,  
August Second, 1910.

# Incontrovertible Facts

That a remedy to be of therapeutic value must produce unquestionable satisfactory results.

That a product established upon its proven utility and scientifically prepared with the object of maintaining its reputation, must be superior to any imitation carelessly compounded with only the maker's "Just as Good" as evidence.

That

*Antiphlogistine*  
Trade Mark

(the original clay dressing) has unquestionably demonstrated its dependable value in all inflammatory conditions, is reflected by the confidence reposed in it by thousands of successful practitioners and its ever increasing sales.

A few doctors may not be familiar with the wide range of conditions in which Antiphlogistine is particularly serviceable, in that instance literature will be cheerfully sent upon request.

---

**The Denver Chemical Mfg. Co.**  
**NEW YORK**



In chronic diseases every doctor of success has his combinations. If the special pathology of a disease had but a single element, of course there would be no necessity of a combination of remedial forces. If a primal pathologic wrong could be identified, the remedy it demands would be sufficient for a cure, for in removing that, its dependencies would naturally disappear. Under such a régime the practice of medicine would be simplified, but, unfortunately, that does not obtain in every case. Hence remedies in combination become imperative in most instances.

QUITE A DIFFERENCE.—Sam Tie: There you go complaining about your doctor bill. Why, I heard you say you would gladly give a hundred dollars to be cured.

Jerry: Yes, but darn it all! that was when I was down in bed.

## TO THREAD A NEEDLE RELIGIOUSLY.

Dr. Joseph M. Jackson has entered the missionary field and has pointed out the straight and narrow path to those whose patience has been tried and whose profanity has been lurid while engaged in threading a needle. Here's the anti-swear method: "To thread a needle, hold it with the ring and little finger of the left hand, instead of with the thumb and forefinger as is the usual way. This method leaves the thumb and forefinger free to grasp the smallest bit of silk or other suture material as it passes through the eye and pull it to a safe distance on the other side. This does away with the slipping back, so common in the old way, of changing hands."

Paregoric is the best preparation of opium to use in children to relieve pain.

## Catgut sterilized in cumol by the Johns Hopkins Hospital Process at 280° Far. for one hour

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Dear Sir:—A bacteriological examination of your preparation of cumol catgut made in this laboratory shows all the tubes to be free from bacteria. Culture tests made from your catgut on bouillon, gelatine and blood serum show no development of germs.

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Cumol Catgut—Plain, \$2.25 per dozen tubes

" " Chromic, 2.25 " "

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In gross quantities 10 per cent. discount. Each tube contains 60 inches of catgut.





HARRISON GRAY OTIS,  
Major General U. S. A. (retired), Editor and Proprietor of the  
Los Angeles Daily Times.



# SOUTHERN CALIFORNIA PRACTITIONER

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Editor,  
DR. WALTER LINDLEY,  
Associate Editors,  
DR. GEORGE H. KRESS and DR. JOHN W. FLINN.  
Assistant Editors,  
DR. H. BERT. ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW  
and DR. F. M. POTTENGER.

## EHRlich-HATA 606.

COLLATED BY THE EDITOR OF THE SOUTHERN CALIFORNIA PRACTITIONER.

The reports in regard to this remedy are wonderful. We want the readers of the *Southern California Practitioner* to have the very latest. The dynamiting of the building of the Los Angeles Daily Times and the fire that followed destroyed almost all of the original copy we had on hand—enough for three issues of this journal. We therefore place this valuable abstract material in the place of our first original article.

### THE EHRlich-HATA 606.

BY LOUIS FISCHER, M.D.

While in Berlin last month a few interesting Clinical observations were made—Medical Berlin is deeply interested in studying the clinical value of Ehrlich-Hata Therapy in Syphilis.

This preparation is the result of a series of 606 different studies which now seem to have resulted in a specific remedy for the cure of spirocheta infections in syphilis.

It is an arsenical preparation derived and combined as an aromatic derivative—and is scientifically called

monochlorate of diaxydiamidoarsenobenzol. It is described in literature by its last name or "Dioxydiamidoarsenobenzol." Ehrlich himself has named it Hata 606 in honor of his faithful assistant named Hata.

The medication is a light colored powder in aseptic ampules of glass and is dissolved in methyl alcohol or glykol to which about 10 ccm. of sterile water is added, then add one-half ccm. of one-tenth normal Na OH solution, add water enough to yield 25 ccm. and this very acid solution is injected. The dose of the preparation used is from 0.1 to 0.6 grammes. It is given in the form of an intragluteal injection—used once only.

The Wasserman reaction is then made to control the result of the treatment, as a rule—a negative reaction resulted within 24-48 hours after treatment. It is for this reason that specific results are claimed for this method of treatment.

Only such cases were injected in which a positive Wasserman reaction was found—and in which distinct evidences of syphilis existed.

Adults were used in whom mercurial treatment had been given with indifferent or no results. Some syphilitic adults of many years standing were also used for clinical studies.

Likewise children in whom distinct luetic manifestations existed were subjected to this form of treatment. In some instances intravenous injections were made and their effect compared with the intragluteal method of infection was inferior.

The specific effect in syphilis was noted on the mucus patches and on all syphilitic exanthematous eruptions papular or otherwise—ulcerous and all glandular swellings showed evidences of healing within a few days after an injection. Chronic recurring ulcerations and eruptions disappeared so soon after an injection as to occasion surprise.

Clinical report of Abt, Schreiber, Wechselmann-Lange Treupel are among the observers on record—so also Von Zeisl recently added to the specific virtues of this remedy.

Great enthusiasm prevailed at the last meeting of the Berlin Medical Society after the announcement of the new anti-luetic remedy which seems destined to aid—with one injection—in the destruction of the syphilitic infection.

Levi studied the urine following the arsenic injection and notes that arsenic is found at least 12 to 13 days therein local effect of the injection.

A slight erysipelatous redness and infiltration of the deeper structures was found in many cases—not in all. A slight rise of temperature was noted about three days after injection—the fever being about 100-100 three-fifths.

**Constitutional Effects.**—There was no disturbance of the nervous system—no ill effect on the vascular or gastro-intestinal tract—the heart was not affected, the urine showed no abnormality—no casts, there was no meth-

haemoglobin in the blood. There was slight leucocytosis (Hirschfeld) in some cases. Even a case of severe nephritis subjected to this treatment did well. A case of pernicious anemia—following a syphilitic infection one and one-half years ago—seemed slightly improved after above treatment.

Some observers looked for the disastrous effects on the optic nerve, and Fehr, in a very thorough clinical investigation reported no ill effects from this remedy.

**Effect on Hereditary Syphilis of Nurslings.**—Cases of pemphigus neonatorum were selected because they are usually fatal. Several cases of infantile syphilis were seen by me, but cannot be reported, as they are still under observation. So much can be said, however, that eruptions disappeared, ulcerations and sloughing of the uvula ceased and a general tendency to renewed vitality appeared, such as has never been noted with mercurial or K. I. treatment. From what has been seen by me it appears that this remedy offers a specific therapy in syphilis which will do away with the old mercurial remedies.

Some changes have been suggested in administering this remedy, as the use of methyl alcohol is not without dangers.—*Pediatrics*.

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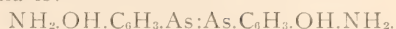
#### THE NEW SPECIFIC FOR SYPHILIS NO. 606.

The announcement of Ehrlich's discovery of an absolute positive-instantaneous cure for syphilis is of sufficient moment to be mentioned editorially in *Pediatrics*. See original article in this issue, from the pen of Dr. Louis Fischer who has just returned from Berlin. Ehrlich's discovery was not an accident, but the result of a long series of painstaking experiments and chemical operations—the last of which numbered 606. Hence the name 606, and also the Hata preparation—called in honor of his faithful assistant

Hata. The preparation 606 is an arsenical product dioxydiamidoarseno-benzol—a light yellow powder which is applied in a 0.5 per cent to two per cent solution. Dr. Wechselmann experimenting with this remedy at the Virchow Hospital in Berlin has observed that the spirochete begin to disappear from chancres and condylomata in a few hours after administration. He says, "that the most skeptical will admit that the new remedy acts on the symptoms of syphilis in all their infectious forms, with a rapidity and thoroughness which cannot be approached by any other known remedy." He has carefully and thoroughly tested it in a series of 80 cases and states that the action occurred with a positiveness that was pleasing. At his hands syphilitic eruptions and ulcerations healed very rapidly; in cases of indurated chancres the surface cleaned up and rapidly healed. Neisser says that "it can be affirmed with certainty that the new remedy exerts a remarkable, even surprising action on the spirochete, as well as on the syphilitic products themselves." A number of other investigators have reported favorable results. The character of the men making these reports concerning this new remedy is of such nature as to convince the profession that a wonderful remedy has been discovered, and while danger, as yet unknown, may be found to result from its use, we are bound to admit that it appears to be a remedy full of promise. The remedy is not yet on the market. Ehrlich stated that he would not give the remedy into the hands of private practitioners until 3,000 cases were reported on.—*Pediatrics*.

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The Ehrlich-Hata preparation—"606"—is but distantly related chemically to sodium cacodylate, atoxyl and arsacetin. It has recently been patented by a German firm, Meister Lucius & Brünig, which will control its manu-

facture and sale. Its structural formula is:



According to the patent specifications, it is obtained from nitro-phenol-arsinic acid, which, on reduction, is changed to amino-phenol-arsinic acid, which, by still further reduction, yields "606," a derivative of arseno-benzene ( $\text{C}_6\text{H}_3.\text{As}:\text{As}.\text{C}_6\text{H}_3$ ). The formula above shows that "606" contains two atoms of tri-valent arsenic united, on the one hand with each other, and on the other hand having replaced a hydrogen atom in a benzene molecule. Each benzene molecule also contains one hydroxyl or phenol group and one amino or anilin group. The chemical constitution may be indicated by the name diamino-hydroxy-arseno-benzene and the relative position of the several groups shown thus:

3-diamino-4-dihydroxy-1-arseno-benzene.

This name has been abbreviated to arseno-benzol or arseno-benzene, which, in a way, is unfortunate, in that it is the name which properly belongs to another body. As it is desirable that the shortest name truly indicative of its composition should be used in the literature, the term "arsen-phenol-amin" is recommended as an abbreviated scientific synonym for this new body which has unfortunately been introduced into medicine under the term "606." Since this product is patented, however, it may be given a catchy rather than a scientific name.

To understand the chemical properties of this body, it should be noted that the arsenic is in the unstable tri-valent form and not in the stable penta-valent form, as in sodium cacodylate, atoxyl or arsacetin. Furthermore, it should be said that the two phenol or hydroxyl groups give the substance a weak acid character enabling it to form weak salts with strong alkalies just as phenol forms them with sodium hydroxid, etc. On the



other hand, the two anilin or amino groups give it basic properties, and just as anilin combines with hydrochloric acid to form a salt, so this substance combines with hydrochloric acid to form a chlorid. Since the molecule contains two anilin groups it combines with two molecules of hydrochloric acid. These anilin groups, however, impart but weak basic properties to the molecule, and hence the chlorid, when dissolved in water, is decomposed with liberation of hydrochloric acid, so that the solution is strongly acid. "Arsen-phenol-amin" (or "606"), is very unstable and is put on the market in the form of its hydrochlorid, which, owing to its acid character, however, cause injections of it to be very painful. For this reason the hydrochlorid is treated with an amount of alkali exactly sufficient to combine with the hydrochloric acid of the salt and to liberate the base "arsen-phenol-amin," which is insoluble and which is injected in the form of a suspension in water.

It is impossible at this time to determine the actual value of the drug, but certain deductions can be made from the large number of cases already reported. There is no doubt that this new remedy produces remarkable results in a surprisingly short time. In some desperate cases of syphilis a cure, temporary at least, followed a single injection; in many of these mercury and other antisypilitics had totally failed. The question as to the permanency of the cure is not answered, and only time can answer it. But if such splendid results may be obtained by one injection, it would seem probable that the remedy would bring about a permanent cure when its action is more clearly understood, and the treatment followed out for a longer or shorter time.

Finally, physicians should remember that this new discovery is, after all, an arsenic preparation. In the past all

new arsenic preparations, though at first recommended as wonderfully active and marvelously free from the toxic effects of arsenic, have in the end been found to possess, in varying degrees, the potency for harm common to this element. It will be fortunate if this new discovery is not found to have similar drawbacks.—*Editorial, Journal A. M. A.*

**The "606 Fever."**—Dr. A. Pulido Martin, in an article in the *Siglo Medico*, of Madrid, September 10, makes some caustic and seemingly injudicious comments on the Ehrlich-Hata preparation for syphilis. He says that he is amazed at the extraordinary advertising that a patented remedy is now receiving—the exclusive property of a single manufacturing firm—and warns physicians not to catch this "606 fever," and to go slow in forming their judgments, as there is commercial money-making involved. "The daily papers," he says, "at Hamburg, Cologne, Vienna and especially at Frankfort, the latter inspired directly by Ehrlich, are publishing columns on the subject but without much scientific value. They add another cipher when they mention the number of cases in which the new drug has been applied; they relate how a Hungarian physician hurried to Frankfort and obtained the details of the manufacture of the drug from Ehrlich and then returned to Budapest and announced the organization of a society to produce the new drug; this was then followed by reports of Ehrlich's indignation at this news and his assertion that the drug is the property of a certain firm of manufacturing chemists and that the Hungarian physician could not possibly have learned the full details of its preparation as he, Ehrlich, related them only in a general way, and, besides this, he has modified the substance since, making it less toxic so that it can be injected in larger doses,

the new substance being called by a new name, Hyperideal; this statement is followed by the declaration that the 'Hyi' is not to be put on the market, and is not distinct from the original '606' (to avoid spoiling the sale of the latter), but is destined solely for use in his own service, etc., etc." "From the many reports that have appeared on the subject it is evident that the '606' or 'Hyperideal,' or whatever other name it may bear by the time these words are published, does not keep well, the injection is painful, and the fever and other signs of a reaction compel vigilant oversight for a few days. Other authors have reported that the injection of '606' was followed by the death of a patient, but the daily papers, commenting on these fatalities, speak of the authors reporting them as enemies of German science and state that these experiences are negligible as the patients were on the point of dying anyway." He adds in conclusion, "It must not be forgotten that other arsenical remedies, used even for syphilis, which at first were regarded as harmless, later proved to have a decidedly toxic action on remote organs, such as atrophy of the optic nerve under atoxyl treatment. Neither must it be forgotten that, while it has not yet been proved beyond question that a therapeutic problem has at last been solved, there cannot be the slightest doubt in respect to the business end of the '606' matter." Bearing all these things in mind, he urges his readers to restrain their first impulse of enthusiasm as not fully justified up to the present.—*Journal A. M. A.*

#### Ehrlich's "606" Specific for Syphilis.

—It appears from the cases McDonagh has treated, that the earlier the syphilis the larger the dose required (0.45 to 0.6 gram), and that 0.3 gram is ample in the late stages. In his cases it was the general rule for the

temperature to rise to 100 F. on the night of the injection, and to become normal after 48 hours; sometimes the fever persisted to the third day, but only in those cases which had some of the toxic edema. In only one case was any albumin found after injection, and in this case it was transient. In almost every case an induration could be felt in both buttocks, probably due to a fibrosis caused by the caustic action of the sodium hydrate; whether the induration will ever disappear time alone will show; at any rate, it causes the patient no inconvenience. Beyond the improvement observed by the naked eye, McDonagh was very much struck by the extraordinary change for the better in almost every patient's general condition; they not only appeared brighter, but felt ever so much better and put on weight; this alone is a great achievement, since there is scarcely a patient who does not become depressed, anemic and lose weight under mercurial treatment. It seems that the severer the case, the quicker the action, and the results obtained so far, McDonagh says, reach beyond expectation.—*The Lancet (London)*, quoted by *Journal A. M. A.*

#### Experiences with Ehrlich's "606."

Fraenkel and Grouven conclude from their experiences with "606" in over a hundred cases of syphilis that it is undoubtedly a remedy which will mark decided progress in treatment of this disease and possibly of others, but they report a fatality after its intravenous administration, which they ascribe to an individual hypersusceptibility to arsenic. The patient was a waiter of about 25, who had suffered for years from severe disturbances in speech, word blindness, etc., evidently of syphilitic origin, and had been in the psychiatric clinic for 18 months on that account. The drug was injected in a small amount of water (0.4 gm. to 15 c.c. of water). Fifteen minutes

later symptoms of serious arsenic poisoning developed, proving fatal in  $3\frac{1}{2}$  hours. Autopsy showed extensive foci of softening in the left temporal lobe and distinct amounts of arsenic were recovered from the spleen, lungs and liver, the only organs examined for this purpose. Since this occurrence the intravenous route is no longer used in the clinic. No appreciable by-effects were observed in any of the other cases. In 30 the fate of the arsenic in the body was investigated and

it was found that from 6 to 10 mg. was eliminated daily in the urine during the first week, and from 6 to 8 mg. in the second week, but after this no further traces could be detected except in a few cases in which 2 mg. was found, and up to 9 mg. in one case. The drug induced a decided and early turn for the better, they say, in all the cases except the one mentioned above, surpassing that ever attained by mercury.—*Münchener Medizinische Wochenschrift*, quoted by Journal A. M. A.

### LAMBERT TREATMENT FOR NARCOTIC ADDICTION, WITH REMARKS ON THE GENERAL SUBJECT.

BY E. H. SAWYER, M.D., BANNING, CAL.

The Town-Lambert treatment for narcotic addiction combines an active catharsis with a continuous medication of the alkaloids of Belladonna up to the limit of physiological tolerance.

The formula used in this treatment is as follows:

Tincture of Belladonna, old strength  
15% ..... 2 parts  
Fluid extract Hyoscyamus.... 1 part  
Fluid extract Xanthoxylin.... 1 part

The Xanthoxylin probably acts merely as a stomachic to render that organ tolerant to the practically constant presence of the Belladonna Alkaloids.

The technique of administration for a morphin patient is as follows: There should be at first a complete cathartic action. It seems best to have the system quite free from morphin at the start, so it is best to begin the Belladonna with an empty bowel and with a definite desire for the drug present.

Catharsis is obtained by the compound Cathartic pills of the Pharmacopeia. These pills are made up into capsules, the separate ingredients freshly prepared and a sufficient amount for four pills in each capsule.

The patient is now given  $\frac{3}{4}$  or  $\frac{3}{4}$  of the average daily amount of the drug used. I have been in the habit of withholding the regular treatment for a day or two to determine accurately the daily amount necessary for the comfort of the patient. It is far better to go over this limit than under it. I have in several instances given the whole daily amount at this time. The morphin is given in three doses, one-half hour apart by mouth or by hypodermic injection as the patient chooses. Fourteen hours after this give one of the capsules and 5 grains of Blue Mass. At the twentieth hour of the treatment give another capsule. At this time a Cathartic action must be obtained or the deprivation symptoms supervene with intensity, and the vomiting, pains and general suffering occur without avail. At the twenty-second hour one can give a half ounce of Magnesium Sulphate and repeat every one-half hour for several doses. After two hours another capsule can be given. At this juncture the judgment of the physician tells what measures to adopt and how often to use them, to obtain the desired result. Blue Mass in doses of 5 and 10 grains is used. Dr. Lambert recom-



mends a pill or capsule which consists of the ingredients of the pilule Catharticae Vegetabilis of the U. S. P., made up fresh and to each capsule the following added:

Oleoresin of Capsicum.....1-10 gr.  
Ginger ..... $\frac{1}{2}$  gr.  
Croton Oil .....1-25 m.

At this time an ox-gall enema may be of service. To let a patient go too long without intestinal action, or to give morphin before this action, are two ways of causing a failure at this time. If the initial dose has not been too large, an action is usually obtained without a great deal of difficulty, but at times it is very hard.

After the bowel movement, one can give about one-half of the original dose and this is the final dose of morphin. In an opium smoker the original dose can be as much as he desires to smoke, and at the time of the second narcotic dose smoking may be distasteful and it is a good plan to give a grain or two of morphin in capsule by mouth. In this way the deprivation symptoms are provided for and the patient deceived in his ability to overcome his habit.

Twelve hours after this narcotic another Cathartic capsule is given. It can be said here that the vegetable Cathartic capsules are given in dosage of two to four at a time.

Six hours after this an ounce or more of castor oil is given. The taste is disguised by coffee or orange juice.

The castor oil causes a peculiar kind of stool, semi-liquid, green in color and composed of mucous and bile.

Thus far only the morphin and cathartic medication has been dealt with. With the first Narcotic dose the Belladonna prescription is begun in dosage of 6 minims. The dose is increased every 6 hours by 2 minims, until 16 M. are taken every hour. The Belladonna is thus given every hour. If signs of Belladonna poisoning appear, omit for a few hours and

begin again at 6 M. The dilation of pupils and loss of accommodation are common and the 50-60 hours of Belladonna do no harm on this account, the eyes being soon adjusted, due to the rapid elimination of the alkaloid. If a beginning delirium is noticed, however, it is imperative that the alkaloid be omitted.

It is important before omitting the Belladonna to be sure that the delirium is caused by this drug. There is a deprivation delirium in morphin and opium and this delirium must be differentiated from the delirium tremens of alcohol. The delirium of Belladonna is quite characteristic, a quick explosive speech and hallucinations insistent along one or two ideas. The alcoholic delirium most nearly resembles it, but is differentiated largely by the type of hallucinations—in alcohol they are usually of occupation type. I have seen a baker distributing imaginary pies under the table in the ward during his alcoholic delirium.

At the time of the passage of the peculiar stool above referred to, the patients occasionally experience entire relief. It is usually best, however, to continue the medication several hours and rarely it may be necessary to give several more cathartics.

For the deprivation pains when they occur, codein phosphate can be given with advantage by hypodermic or mouth in dosage of 2 to 10 grains. This quiets the pain and does not interfere with elimination as morphin does.

For nervousness powders of chloral gr. XV and sodium bromid gr. XXX can be given. This nervousness and sleeplessness is common for a week or more after the desire is gone. Trional in 20 and 30 grain doses is also, of great value. In case of nausea or vomiting, combat with powders of bismuth subnitrate, gr. X, and Cerium Oxalate, gr. X.

It is well to have the teeth in good condition, as the calomel and Blue Mass is sufficient in some cases to produce a mild salivation.

The majority of the patients do not continue the medication more than 50 hours. If the desire persists the Belladonna should be kept up and cathartics at intervals, using codein in as small a quantity as the comfort of the patient permits. I have given the Belladonna over a period of 120 hours with final success.

The treatment of alcoholic patients is much the same and can even be identical. It is best with these patients to begin the Belladonna in the absence of violent intoxication. It is therefore advisable in the acute alcoholic to produce sleep at once. The handling of alcoholism in its wild and acute stage is too well-known to need amplification here. The specific treatment alluded to in this paper may well begin after a good sleep of eight or ten hours. The intoxication from Belladonna is more common in the alcoholic, but the drug may be more safely omitted and its administration shortened. In all alcoholic "cures" the measure of success attained is to a very large extent dependent upon the degree of psychological skill employed.

With alcoholic patients the deprivation is not advisable if distressing, so for the first 24 hours 2 ounces of whiskey can be given every 6 hours in milk and  $\frac{1}{2}$  of this amount repeated the second 24 hours. This routine can usually be easily enforced and many will not need this amount.

When cocain is used in conjunction with morphin the initial dose of the latter should be less. The cocain can be sharply omitted and its stimulating effect substituted by strychnin, gr. 1/30, every four hours.

In all these cases directly following the termination of the medication, great stomach stimulation is very

comforting. This effect is best obtained by hot beef bouillon, and by tincture of capsicum.

It is to be remembered and emphasized especially in morphin habitues, that extraordinary precautions are necessary to prevent the patient from having access to any drugs. Of course they will take any drug under these circumstances and a poison label is an especial delight.

This is an account of the technique of administration of the Town-Lambert treatment, the essence of which is a vigorous intestinal elimination, with a possible acceleration of the liver function, properly timed to narcotic administration, and a neutralization of the narcotic effects, by the alkaloids of Belladonna. Fel Bovis could be used as chologogue to advantage, and as a substitute for some of the mercury recommended. I have not made this alteration, however, in practice.

Considerable misapprehension exists as to the results obtained and obtainable from this treatment. This transpires because of different interpretations put upon some of the terms used, notably the words "craving" and "cure." "An obliteration of the craving for narcotic drugs" is the expression used for the final outcome of the treatment.

It seems best to discuss briefly the subject of physiological craving. Using morphin as an example, craving is a desire for the accustomed effects of morphin, such desire being both mental and physical, increasing rapidly as elimination occurs, eventually causing the afflicted person extreme mental and physical suffering and making him dangerous because of a governing force greater than moral or civil law.

It is well to emphasize that this craving is in no way a purely mental or imaginative affair. Proof of this is found in the fact that the lower

animals, the pets of the Chinese, acquire this craving and not being supplied with their accustomed opiate, the opium smoke, suffer and die.

Again, the physical part of the craving is manifest during enforced deprivation in a human patient, through actual pain, particularly in the lower limbs, vomiting and somatic disturbances, such as "crawling sensations" and itching.

The craving thus described gives a feeling of enslavement at all times and is the great factor in driving the victims to seek help. There are other displeasing phases which this craving brings to the reflective mind of the patient, causing him to wish relief.

With reference to the word "cure," the following can be offered. Any derivative treatment of this nature cannot be considered a "cure all" or even a cure in any sense where permanence is implied. The suggestion of a "cure" in this treatment is derived not only from the history of institutions publicly advertising and guaranteeing "cures" but from the fact that there is a very definite thing accomplished, namely, an obliteration of the above-mentioned craving, thus making possible a permanent freedom from the use of the drug.

In other words, a case is a success as far as a derivative treatment is concerned who is enabled to remain without his accustomed narcotic, with no discomfiture, for a period of two or three days succeeding the termination of the treatment. This refers more specifically to opium and morphin. After this other than physiological factors enter in to bring about relapse.

This elimination of the physical effect of the narcotic, together with its violent potentiality, is absolutely necessary before we can expect of the patient normal behavior. He is then enabled to appreciate properly the

conditions of his world and can more truly exercise choice. But this effect, namely, a sudden shift from an irresponsible, semi-dream condition into a hustling matter-of-fact world finds most of these people unable to meet the conditions and accept the responsibilities put upon them. Hence the strong tendency to return to their drug.

The prognosis is better in the young habitué who has begun for no particular reason. The ambition of youth may lead him to some field of interest where he forgets the drug. But even in these cases there is always a treacherous memory to be reckoned with; a memory which turns them back to a condition which knows no worries, no annoyances, no pain.

The genuine permanent good you can do these people, then, is slight.

A cure in this connection, then, has two phases: First, the removal of the physiological craving; and second, the restoration (in many cases the creation) of a sturdy, dependable character. The Lambert treatment justified its claim as to the first phase of the cure; as to the latter, no mere drug treatment can legitimately guarantee positive results.

Passing now to an entirely different phase of the subject, I wish to write concerning the different types of drug addiction applying for treatment.

Opium smoking is compatible with a fairly well regulated life and this type of habitué may go for years without much loss of weight, and without the mental, physical and moral deterioration seen in other forms.

The habit of hypodermic injection of morphin seems to create much more unreliable beings. Unreliable in all the affairs of life—eating, sleeping, dress and business engagements. He seems more wholly to be apart from



the world of time and space. I have thought that the cause of this great contrast was to be found in the question of dosage and immunity. A smoker more easily regulates the time and amount of his narcotic. The latter finds the greatest difficulty in remaining on small doses at definite intervals, due, with little doubt, to the readiness of forming immunity to small doses. The study of immunity is very interesting in this type, it being associated with a progression in dosage curious in its relation to craving. Morphin in dosage of one-fourth grain by hypodermic in comparatively short time becomes of little effect, so that users begin to suspect the power or make of the tablet. Ultimately the craving is satisfied only by large doses of the drug. It is interesting to observe that the immunity established apparently does the organism no good because it is not accompanied by cessation of the craving, which practically means the continuance of the harmful agent. In other words, the immunity does not protect.

The types in which cocain is used are the most unreliable of all. The combination of hypodermic use of morphin and cocain produce the widest variation from normal forms of degeneracy and perversion being common. The stimulating effect of cocain and its anaesthetizing effect on the sense of hunger and pain obviously obscure the effects of morphin so that the greatest confusion exists as to required dose at any time requisite to quiet the craving. The mental deterioration found in some of these cases may go on to acute mania and persist for some time after a Lambert cure. Cocain in many ways is the most pernicious of the narcotic drugs, because the exhilaration produced in the mind is so great that a deliberate return to

it is common. The attitude of mind in taking cocain is somewhat similar to that of taking coffee solely for its stimulative effect. In fact, I am inclined to think that all cocain habituation is deliberate, and not determined by any legitimate craving.

Alcoholism may be variously subdivided into types, depending upon age, occupation and form of liquor used. This form of narcotic habituation is, of course, more common and calls for very extensive consideration. The Lambert treatment obliterates the physiological craving for alcohol. A permanent cure is hard to effect because of the ease of obtaining liquor as well as other temptations.

The craving for tobacco is seen most typically in the use of the cigarettes by inhalation, another type of narcotic addiction. This craving or taste is very clearly obliterated by the Belladonna treatment. Morphin and alcoholic patients who smoke frequently will speak of the unwonted distaste for tobacco following or during the treatment.

The restoration to a normal condition of the central nerve structure, and general physiology was illustrated quite clearly in one of my cases of morphin addiction. The patient in question had chewed tobacco for a number of years. After the obliteration of his craving for morphin, which was very definite, he, without thought, took a chew of tobacco, and experienced all the phenomena of nicotin poisoning that a boy would, the nausea, cold sweating, etc. This fact would seem to emphasize a genuine return, through this treatment, to a normal physiological condition.

Ref: Original article by Alexander Lambert, M.D., "The Obliteration of the Craving for Narcotic Drugs," *Journal of A. M. A.*, Sept. 25, 1909.

## PUBLIC HEALTH ADMINISTRATION IN ARIZONA —PRACTICAL DIFFICULTIES\*

BY EDWARD S. GODFREY, JR., M.D.,  
TERRITORIAL SUPERINTENDENT OF PUBLIC HEALTH, PHOENIX, ARIZ.

In choosing this subject for presentation at this meeting, I desire to bring before the membership concrete obstacles to be overcome, rather than generalities. It is apt to be a tedious subject and yet it is one of great importance and must be considered in proposing legislation or in recommending execution.

To begin with the city and town health officers, there appears to be doubt in the minds of authorities as to whether or not the provisions of Section 15 of the Public Health Act of 1903 apply to *towns* as well as to cities. It seems that it does not; and that where towns have not used the power vested in them by the Revised Statutes of establishing a town board of health, the county board of health may assume charge (upon request, but not otherwise), in which case all expenses for quarantine, etc., are proper charges against the county. From this it appears that the law is deficient, and while the creation of more ill-paid, part-time health officers is hardly to be favored, it seems that power should be inherent in the county board to interfere at any time it may see fit to carry out such measures of sanitation and quarantine as are right and reasonable, the charges being paid by the corporation. To allow a town to permit nuisances to go unabated, to make little or no attempt at proper regulation of privies, cesspools, wells, habitations and general living conditions, in short to prepare the soil for some epidemic that may menace the health of the county at large and then make the county responsible for the expense of its suppression, is not wise, nor honorable, nor just.

It is possible that under its supervisory powers, the Territorial Board might make inspections and direct improvements to be made within incorporated places, and while I, personally, think that this would be the method to be preferred, it would be impossible of accomplishment with the present organization of the Board and its limited resources.

The powers and duties of city health officers are more clearly defined by the statutes and under them it is possible to find a corner stone for regulations to further define their duties. In the regularly constituted health officer we have a tangible something upon which to build. The difficulty here seems to lie in inadequate pay, short tenures and part time service, a pernicious system which is country wide and whose evils are only dimly realized by the public and the medical profession itself. It has but one quality to commend it and that a very doubtful one. Cheap goods, taking them by and large, are poor goods, and the fact that here and there we see exceptions does not make that maxim of trade any less a fact. We will not get adequate service as long as health officers are employed for only a part of their time and the amount of that time made optional with the person most interested in seeing that it is small. We will not get full time health officers unless they are better paid. We will not get *trained* full time men to do this work until they are well paid and their tenure of office made secure by legislative enactment.

As for the county superintendents, the trouble lies, to a certain extent, elsewhere. They are presumed to be,

\*Read before the Arizona Medical Association, April 21, 1910

and custom has established them, as part time officials, though there is no legal bar to their giving full time service and being paid reasonably well for it. The effectual bar is the unwillingness of county boards of supervisors to pay the bills. A county surveyor may hand in his bill for ten dollars per diem with some assurance of its being favorably acted upon, but were a mere health officer to do the same thing for any considerable number of days, he would probably be accused of graft unless he had an epidemic to excuse his temerity. It is rather curious that the economical layman supervisor will complacently allow bills for epidemics that are sometimes truly staggering, and yet hesitate at the bare thought of a bill for inspection. It is also rather curious that they view with complacency the salary bills which are frequently for next to nothing at all, and yet object to paying reasonably for health services actually performed. To a certain extent perhaps the fault lies with the county superintendents themselves. Some few possibly really want the office to remain a sinecure; some have failed to impress their boards with the importance of inspections; possibly the inspections have not been followed by a remedying of objectionable conditions either through their impracticability or through lack of persistence by the superintendent. There is another reason, and it is a very potent one. It is the natural hesitancy of a conscientious man to suggest something which, though a thing in every way desirable, is yet unusual and will bring personal monetary reward. He has a rather natural feeling in these days of graft exposures that his motives will be misjudged—that deep in their minds people will think that the ostensible, worthy motive is but a cloak to cupidity.

But all of these difficulties could be removed and we would have another most difficult obstacle to overcome. That is the reporting of births and contagious diseases by the physicians and midwives. The reporting of births, owing to the present lack of means whereby these reports could be made of considerable use, is not of vast importance from the public health standpoint. The reporting of infectious diseases is of vital importance. It seems to me rather peculiar that in the articles which I have read in recent years (though I have not read a great many of them) on the duty of the physician to the public, the reporting of infectious diseases is unmentioned. We find not a word about this duty to the public, though it is so apparent that it must come first to the mind of him who gives it thought. It would be easy to believe that it had been passed over as a commonplace were it not that the experience of health officers leads to a far different conclusion.

I am told by health officers from different parts of the territory that in their opinion the number of contagious diseases reported comes farther from being the truth than either births or deaths. I think there is some reason to be found for this in the fact that the Territorial Board has never specifically named those diseases which are to be considered infectious. Another partial reason is that the quarantine is not always properly maintained, that the reports are not put to their fullest use, that foci of infection are not sought for and eradicated. Another reason, and a less flattering one, which has been given, is that physicians fear interference and a loss of patronage. I do not think this a common cause. The principal reason in my estimation is simple neglect—forgetfulness.

A remedy for this condition which is not uncommonly heard, is the payment of a small fee to the physician



for his report. This might be approved upon the condition that the report be complete and give the detailed information which will enable a health officer to find the source of infection, whether school, water, milk, or whatsoever it may be. For such a service the physician is entitled to a fee, and I think that under our present law its payment can be accomplished. It is provided in Section 34 of the Act of 1903 that in case of the occurrence of any epidemic disease, the local board of health may employ such persons as it deems necessary to prevent its spread. Hence when a physician makes a diagnosis of an infectious disease, why could he not be made *ipso facto* an employee of the local board of health for the purpose of obtaining a complete report of the case?

Such complete reports are necessary if we are to have intelligent action. They are also highly desirable as a means of accumulating evidence as to the influence of social conditions upon disease. This is a phase of public health work that has been given very little consideration in this country, except in the large cities of the east. However, if we will look at the experience of those other states which have had their day as reputed health resorts, we must see that industrial and social conditions have had at least quite as much influence as the much vaunted climate in the establishment of a low death rate. The effects of overcrowding and unsanitary housing which result from high rents and poverty cannot be overcome by education and disinfection. They can be ameliorated by these measures it is true, but that they afford a solution of the problem does not seem reasonable. At the present time these are largely mere matters of individual observation. We should have the collected experience of every physician of the territory; not their impressions, but the actual facts; the data upon which

their impressions are based. I know of no better way in which this data can be collected; and of nothing which will so accurately inform us as to a probable fundamental cause of the incidence of infectious diseases.

The difficulty with the Territorial Board is in a lack of funds to carry on the work. What the office needs more than anything else is competent clerical assistance and this cannot be obtained with the funds at our disposal and yet pay for the necessary printing, postage and office supplies. The printing has been done at an extremely low figure, so low in fact that it has taken an unusual amount of time and nervous energy to read and correct proofs and to prod the printer. I confess to having some doubts as to its being a real economy. The bulletin has been entered as second class matter, thus effecting a saving of from ten to fourteen dollars each issue. The office expenses this year have been somewhat higher than they will be next year, owing to the fact that there was practically no equipment at the beginning.

The expenses of the Board for the past twelve months have been as follows:

Printing .....	\$342.00
Office expenses (equipment) .....	248.75
Stenographer .....	268.70
Postage .....	91.63
Traveling expenses.....	122.15

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\$1,073.23

The above amounts were expended from the appropriation for the Registrar of Vital Statistics. The fund allowed the Superintendent of Public Health will be entirely used up by necessary printing. As it is so very small (\$300.00), it will be necessary to practically combine two years' appropriations in one. For this reason the printing of pamphlets on the infectious diseases will be deferred till

near the close of the present fiscal year.

A stenographer has been employed (part or full time) during the past eight months. It is found that those who are willing to work full time for the salary offered are inefficient or will soon leave for more attractive pay. The only alternative is part time employment, and this has been found better, though far from satisfactory. Physicians should be reminded that a large part of the work of the office, and particularly that part relating to registration, is purely clerical and can be more efficiently managed by a person with that sort of training. It is rather absurd to assign a medical man such a task. The Secretary of the Board should give his time largely to study, to directing and advising rather than to all the infinite details of the work. To do all that he should do under the present conditions would take a day of forty-eight hours and a year of twenty-four months. It is unreasonable and unjust, and at the risk of being thought purely self-seeking, I here call attention to it and ask that you give your aid in properly solving the difficulty.

Another practical difficulty is with the local and county registrars. Why it was thought necessary to have county registrars, I do not know. In some of the counties they are a little worse than useless. Certificates transmitted by local registrars have never reached the Territorial office and it was only through the checking up of the accounts at the end of the year that their omission was discovered. They cost the counties of the territory \$3,900 in salaries, and I am satisfied that one-half that sum expended for clerks in a central office could do the work very much better. This is not an objection to the county superintendents receiving a larger salary. It is an objection to a wasteful system, wasteful because the work for which

they are ostensibly paid can be better done in a cheaper way. Centralization is a specific proviso of the requirements provided by the committees of the American Medical and other associations which drafted the model law, it having been found by long experience that the county system was a failure, while the centralized state systems had so far given success. Let me be understood. In the counties where there are efficient county superintendents, the system works; in those where they are not, it does not work and the only recourse is through tedious court proceedings, which would require more time than can possibly be spared from the routine, and which are of very doubtful utility. The power of appointment and removal lies without the control of the Territorial Board and in this way its hands are quite effectually tied.

Another practical difficulty is that of securing competent persons to act as local registrars in the smaller outlying districts. The fees collected by these registrars amount to so little that they are practically no object. It might be possible to overcome this difficulty by doubling the fees for districts of less than one thousand population and of paying the registrars quarterly or semi-annually instead of annually as at present. It seems, too, that these registrars are entitled to larger fees than in the more populous communities. The absence of undertakers requires that they spend some little time collecting the particulars of information for each certificate. If their work is properly done, it requires a good deal more of their time than does similar work of the registrars of larger places, and in the interests of efficiency and of justice it seems the increase should be granted.

In the foregoing I have simply called the attention of this Association to some of the practical difficulties

which should be considered in recommending legislation. That they can be remedied to a large extent by legislation seems to me quite probable, though considerable care should be given to the drafting of the measure.

In my opinion this Association should *ask* for what it thinks necessary and *take* the best it can get. In other words, the onus for any deficiency in our health laws should be upon the legislature and not on the Association.

## ANIMAL EXPERIMENTATION—ITS RELATION TO MODERN MEDICINE.\*

BY HENRY SHERRY, M.D., PASADENA.

Ignoring, for the nonce, religious history, tradition and dogmatic teaching, as it applies to the relationship between man and animals, and viewing the subject from a strictly material standpoint, man stands forth as the dominant force in the animal kingdom, and he is but following the law of creative nature in assuming dominion over all other animals.

He, therefore, by the right of endowment, uses the flesh of the brute creation for food, their skins for clothing, and makes them subservient to his will as his servants.

He, also, by the same law of endowment, destroys poisons, noxious, and vicious animals. His right to the performance of these acts has never been questioned, and it is idle to argue or assume that by the same law of endowment he may not use the attributes which Nature and Nature's God have given him, in the conservation and preservation of his existence, by overcoming destructive forces within himself as well as without. His right to live as an animal is not the measure of statutory enactment, but the measure of his ability to overcome destructive agents.

The crux of the situation is not, therefore, the measure of his right as an animal, to use the powers with which he is endowed, but to what extent he may do so without brutalizing, or sensualizing his attributes as a man.

Thought is evolutionary, and its material manifestations are perfect, or imperfect, as the primal forces which generated it.

The early practice of surgery was cruel, not because of mental intent on the part of the operator, but because thought had not advanced beyond a primitive stage in surgical procedure. Methods of inducing artificial sleep, benumbing sensibility, and obtunding pain had not been discovered. But by the advancement of thought these discoveries have softened the terrors of the operating room, lessened the shock of the necessary dissection, and placed surgery in the commanding position which it occupies today.

The early efforts of physicians to gain a knowledge of human anatomy were both gruesome and criminal, because the lay mind had not, as yet, comprehended the necessity for accurate knowledge on the part of the medical practitioner. And not until associations for the study of human anatomy petitioned the various legislatures to legalize human dissection, and give it plenary powers over the unclaimed dead, was the study of anatomy relieved of the odium and criminality which attached to it.

The early history of animal experimentation is but a repetition of the early history of surgery, cruel and gruesome; not through mental intent of the experimenter, or operator, but because of primitive methods. And as

\*Address delivered before the California State Humane Society, at its annual meeting in Pasadena, September 19-22, 1910.



surgery has been softened by anaesthetics, and other methods of anaesthesia, so have the operations upon animals been made painless by the use of the same methods.

So far as my own observation has gone, by correspondence with the heads of departments for medical research, by conversations with students, and others, who have been assistants or spectators to such experiments, and in my own work as a student and teacher in times past, all such work has been done under anaesthesia, and as devoid of cruelty as possible under living dissection.

Man is not alone the beneficiary of animal experimentation. Inasmuch as he is the custodian and conservator of domestic animals, it is a duty incumbent upon him, and a right which they in reason may be said to possess as a part of their inheritance, that he should be their preserver. And in the performance of this work, whether upon himself as a human animal, or other animals, he has ever had in view the principle that the sacrifice of the less was justified that the greater might be benefited.

There is, however, no desire on the part of this paper to condone cruelty, or to advocate indiscriminate or reckless experimentation. Its practice should be limited to those competent to a rightful and proper use thereof; and none are more anxious for this than the earnest workers in this field of advanced science and humanitarianism.

The beginning of modern experimental medicine was the work of Harvey in 1628 in discovering the circulation of the blood through the heart and arteries. In 1661 Malpighi, by the use of the microscope, succeeded in following, in the lung of the living frog, the course of the blood from the arteries, through the capillaries into the veins. Thus was the discovery of the circulation of the blood made possible only by animal experimentation.

### Small-Pox

Vaccination for small-pox was the result of animal experiments made by Jenner, previous to which the death rate from this disease was appalling. The city of London, in the eighteenth century, having an average of 10,000 cases a year. And the average death rate was four and five-tenths per cent per thousand for the total population. King William of Prussia, in 1803, said that 40,000 persons died annually in his kingdom from small-pox. Now note the antithesis. Vaccination, says Keebler, in 1901, has practically banished small-pox from the Prussian army. In Mexico whole tribes of Indians have been wiped out of existence by small-pox. In the Philippines previous to the introduction of vaccination, the annual death rate had been 60,000. The Director of Health, Dr. Heiser, reports, in 1907, that no deaths had occurred since the introduction of vaccination. The literature of small-pox and vaccination is so voluminous that no one need remain in ignorance of the disastrous results of the former, or the value of the latter as a preventive, made possible by animal inoculation.

### Child-Bed Fever,

now almost unknown, was, up to 1878, frightful and fatal in its results. In this year, Pasteur demonstrated before the Paris Academy of Medicine that the cause of this disease was a bacteria known as the *Streptococcus*. And this was discovered by animal experiments combined with laboratory investigation in the test-tube.

### Modern Surgery

owes its success to the experiments and discoveries of Pasteur in the field of Bacteriology, and of Lister in the destruction and prevention of Pus Bacteria, made possible only by animal experimentation.

### Paralysis

The discovery of the geographical

areas of the brain which control the motions of the body was verified by animal experimentation. A man in apparent health, walking on the street is suddenly stricken and falls to the ground unconscious. Who but the anatomist and physiologist, taught by animal experiments, could tell that a blood-vessel of the brain had ruptured and that pressure by hemorrhage, at a certain point, had caused loss of functional power? And to such men as Ferrier, and Horsley, whose researches, aided by animal experiments, are we indebted for a knowledge that is absolute, as against a knowledge that is only a hypothesis.

#### **Gun-Shot Wounds of the Abdomen**

Up to 1885 but twenty-five successful operations for gun-shot wounds of the abdomen had been performed in the whole world. Now there are thousands of successful cases. The medical history of the Civil War in this country shows that gun-shot wounds of the abdomen were almost invariably fatal. Why this change? Animal experiments made by Senn, Parkes, and others, taught surgeons how to deal with them successfully.

#### **Tetanus—Lockjaw**

is being gradually overcome as the result of animal experimentation.

#### **Hydrophobia**

as a result of rabies in dogs has succumbed to the knowledge gained by animal experimentation. One who has never seen a human being in the throes of hydrophobia can have no conception of its horrors. And any means or methods which can mitigate its terrors ought to be hailed as a blessing.

#### **Bubonic Plague**

Who, but the painstaking laboratory worker, by his experiments on animals, such animals as rats, and ground-squirrels, etc., discovered the source and the methods of eliminating this pestilence from the state of Cal-

fornia? Who but the Marine Hospital surgeons, Drs. Blue and McCoy of San Francisco and Dr. Black of Pasadena?

#### **Diphtheria**

The history of the death rate of this scourge of children, previous to the discovery of antitoxin, is the history of many a blasted home and community. And any man or woman who can stand before their colleagues and argue that the experiments upon horses that brought forth this discovery was not justified by the means ought to be transported, not to a haven of rest, but to the graveyard of those who have died of diphtheria, there to receive the anathema which their ignoble sentiments deserve.

#### **Cerebro-Spinal Meningitis**

Previous to 1907 the death rate from this disease was seventy-five out of every one hundred, but in this year Dr. Flexner of the Rockefeller Institute, by a series of experiments on twenty-five monkeys and one hundred guinea pigs, discovered a serum which has reduced the death rate to seven per cent. In 1909 the son of one of the greatest governors of one of the greatest states in the Union was cured of this disease by Flexner's serum. Now, he is not the only son who has been saved to life and happiness by this discovery, but if he were your son, OR YOUR SON, OR YOUR SON, would you believe the end justified the means? Do you believe that the 500 human lives that have been saved within the past two years by this discovery were as valuable as the twenty-five monkeys and one hundred guinea pigs?

#### **Tuberculosis**

One of the central figures in the International Congress for the Study of Tuberculosis, held in Washington two years ago, was Trudeau, of New York, himself a victim of incipient tuberculosis, twenty-five years ago, went to

Saranac, New York, and has devoted his life to the study of this disease, and this is what he says: "Thanks to animal experimentation, we know today that tuberculosis is not inherited; that it is communicable, and therefore preventable, and in its earlier stages it is curable. During my lifetime all this knowledge, so practical in its bearing on the saving of countless human lives, has been won by animal experimentation."

### Physiology

Our knowledge of various functions of the body has been gained slowly. Conjecture and hypothesis being verified or discarded as animal experimentation has substantiated or invalidated the one or the other. To enumerate them would be to cover the knowable of the bodily functions. Had animal experimentation never been allowed, then the work of the surgeon, the knowledge of the physiologist, and the experience of the physician would have been that of an age dwarfed and shackled.

### Experiments on Man

The brute creation has not alone furnished all the material for the elucidation of disease. Animal experimentation furnished the key whereby the discovery was made that certain diseases were caused by the bite of a specific insect, depositing the larvae in the tissues of the body. Chief of these is

#### Yellow Fever

Need I tell you that Cuba, for two centuries, was never free from its frightful ravages, until the American Commission showed how to get rid of it. That the Panama Canal Zone was known as "The Graveyard of Strangers." Now, for four years, not a single case has originated there. For years physicians had experimented in an effort to discover the causative factor. Sleeping in the bed of patients who had died of yellow fever, swal-

lowing the black vomit, trying to inoculate themselves by hypodermic injections, etc.

But persistence and painstaking investigation finally won, and of the four hundred species of mosquitoes, one species was found to be the carrier of the poison, and that the female. But to prove it some human being must be the sacrificial agent, and the first one to submit was Dr. Carroll of the U. S. Army. Then others followed, doctors, soldiers, and several lost their lives, among them Dr. Lazear, whose future promised much. His tablet in the Johns Hopkins Hospital, at Baltimore, contains these words by President Elliott of Harvard: "With more than the courage and devotion of the soldier, he risked and lost his life to show how a fearful pestilence is communicated and how its ravages may be prevented."

### Malarial Fever

Anyone familiar with the geography of our country knows that parts of it are almost uninhabitable by reason of this disease. And only so short a time ago as 1895, Dr. Ross, a British army surgeon demonstrated that malaria was caused by the bite of another species of mosquito. His experiments and demonstrations read like the romance of a lost age.

### Animal Diseases

Man has not been the only beneficiary of animal experimentation, for his own kind have equally profited with man.

#### Anthrax

"Anthrax caused annually the death rate of thousands of animals until its cause was discovered, its methods of dissemination determined, and a preventive vaccine brought out by Pasteur."—Report of Dr. Moore, of New York.

#### Contagious Pleuro-Pneumonia

cost England \$450,000,000 the first twenty-five years of the century just



past, and it took six years and \$1,500,000 to eradicate it from the United States. And this result was obtained through the experiments made by Dr. Salmon of New York on animals.

Glanders in horses and rabies in dogs certainly have proven, over and over again, the value of animal experimentation.

### Swine Diseases

were conquered only after laboratory experiments had discovered the cause and prevention.

### Tuberculosis in Animals

Of all the diseases of cattle this is the most disastrous, not alone to the brute animal, but to the human animal as well. Much remains yet to be

done in this field of experimentation.

### Early Experimentation

on animals, as I have already stated, was, in some instances wanton and cruel, due to the individual and to imperfect methods and not by sanction or warranty.

If it is your desire to handicap and cripple the progress of modern medicine, or to sweep away the entire fabric upon which it rests, then stop animal experimentation. If, on the other hand, you desire to aid in eliminating its crudities and mitigate its cruelties, then come forward with fairness and justice, trusting in the judgment, integrity and humanity of earnest research workers as you desire them to trust in yours.

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## TREATMENT OF RHEUMATISM BY BEE STINGS.\*

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BY F. H. MABERLY, M.R.C.S., ENG., L.R.C.P., AND L. M. EDIN, L.S.A., AND  
R. JONES BURDETTE, A.B., ETC.

In October last I happened to see an old patient who three years before had a severe attack of rheumatism which developed into chronic arthritis. Almost all known remedies—baths at Buxton, Lanwrtyd and Croitwich, electricity, massage, and the usual drugs and diets—were tried without success, and he became so ill that, although only fifty-five years of age, he was pensioned off by the Birmingham Water Department, where he was employed. He steadily grew more helpless, and had long given up all treatment. His legs and arms were flexed strongly, his chin was drawn down almost onto his chest, and he was only able to open his mouth about half an inch. He was never free from pain, and from being a fine and active man he had become a helpless cripple. I tried to cheer him, and told him that if I learned of anything likely to do him good, I would let him know, and

the same evening I happened to meet a "bee expert," who said the case was just one for the bee treatment. So I made arrangements to have the patient driven to my house, and he was given the first application on October 30th. With the greatest difficulty he hobbled into my consulting room, his height being only 5 feet 3 inches, so doubled up was he, though his real stature was 5 feet 10 inches. We persevered with the bee treatment, giving him about 18 stings weekly, and in two months he stood 5 feet 5 inches, he could hold his head up and open his mouth fully, and the pains in the joints had almost disappeared.

A second case brought to my notice was that of a man about 35 years of age, who had been laid up three times with rheumatic fever for six or seven months each time, and found his joints increasingly stiff with each attack. In his case the bee stings did marvels.

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\*For further observations on this subject see the *Lancet* (London), July 23, 1910.

He told me that his feet had always been stiff from the first attack, but now he could walk anywhere, and "did about 20 miles every Sunday." I found his ankle movements to be perfect and he stood on his toes for me quite easily. He said that he always ate and drank whatever he liked, and whenever he liked, and whenever he could catch a bee in his garden, he did so and put it on. I visited a number of other cases with the same friend, some of old-standing chronic rheumatism, both in elderly and younger subjects, and all were doing well, while in nearly all the usual remedies had been tried without any good result.

I select a few of my own cases for mention as examples of treatment. Mrs. ———, a married lady, aged 30 years, was attacked with rheumatic fever while on a holiday about 20 miles from home. She was brought home delirious in a motor and confined to bed for eight weeks. During the first fortnight her temperature kept between 104 degrees and 105 degrees F., with profuse acid perspirations and very severe joint pains. Endocarditis supervened and left a regurgitant mitral murmur. During convalescence the joint pains were very troublesome, and after trying various remedies without much relief, I persuaded her to allow me to try the bees. Five applications completely relieved her and she has been quite well since. Miss ———, a young lady aged 25 years, was attacked with influenza four years ago, which left a neuritis of the left arm. This was so painful that she could not even sew with comfort, and if she attempted to ride her bicycle, the jar was more than she could bear. She carried her arm in a sling for six months, giving it perfect rest; she also tried electrical treatment, massage and various ointments, but without any permanent good result. A few months ago I persuaded her to try the bees, and four applications completely cured

her. Mr. ———, aged 35 years, a professional violoncellist, in December, 1909, was attacked with influenza, leaving "rheumatic" pains in the joints. Although I advised him to try the bees, he had found such good results from certain saline baths on a former occasion that he determined to take a course of them again. During his stay he was attacked with rheumatic fever and was laid up there for some weeks. When he returned the pain and stiffness in his joints were very severe, and prevented him fulfilling any professional engagements. On February 27 I put 15 bees on him and on March 3rd he played at a concert away from home. He continued the treatment until May 29th, altogether having ten applications of bees, and is now quite well. I conclude from this that the remedy, if it does not effect a complete cure, gives relief in almost hopeless cases.

In elderly people it is better to start with about six stings for the first three applications, when they may be gradually increased, even up to a couple of dozen. Sickness often supervenes if too many are put on at first. There is a little difficulty for a novice in putting them on, but I have perfected a pair of forceps which, while preventing injury to the bees, holds them firmly. The stings should remain in for a few moments before removing them. In old standing cases the treatment will have to be continued for many months.

One day, not a great while ago, Mr. Middlerib read in his favorite paper a paragraph stating that the sting of a bee was a sure cure for rheumatism, and citing several remarkable instances in which people had been perfectly cured by this abrupt remedy. Mr. Middlerib thought of the rheumatic twinges that grappled his knees once in a while and made his life a burden.

He read the article several times and pondered over it. He understood that the stinging must be done scientifically and thoroughly. The bee, as he understood the article, was to be gripped by the ears and set down upon the rheumatic joint and held there until it stung itself stingless. He had some misgivings about the matter. He knew it would hurt. He hardly thought it could hurt any worse than the rheumatism, and it had been so many years since he was stung by a bee that he had almost forgotten what it felt like. He had, however, a general feeling that it would hurt some. But desperate diseases require desperate remedies, and Mr. Middlerib was willing to undergo any amount of suffering if it would cure his rheumatism.

He contracted with Master Middlerib for a limited supply of bees; humming and buzzing about in the summer air, Mr. Middlerib did not know how to get them. He felt, however, that he could safely depend upon the instincts and methods of boyhood. He knew that if there was any way in heaven whereby the shyest bee that ever lifted a two-hundred-pound man off the clover could be induced to enter a wide-mouthed glass bottle, his son knew that way.

For the small sum of one dime Master Middlerib agreed to procure several, to-wit: six bees, sex and age not specified; but, as Mr. Middlerib was left in uncertainty as to the race, it was made obligatory upon the contractor to have three of them honey, and three humble, or, in the generally accepted vernacular, bumble bees. Mr. Middlerib did not tell his son what he wanted those bees for, and the boy went off on his mission with his head so full of astonishment that it fairly whirled. Evening brings all home, and the last rays of the declining sun fell upon Master Middlerib with a short, wide mouthed bottle comfort-

ably populated with hot, ill-natured bees, and Mr. Middlerib and a dime. The dime and the bottle changed hands. Mr. Middlerib put the bottle in his coat pocket and went into the house, eyeing everybody he met very suspiciously, as though he had made up his mind to sting to death the first person who said "bee" to him. He confided his guilty secret to none of his family. He hid his bees in his bedroom, and as he looked at them just before putting them away he half wished the experiment was safely over. He wished the imprisoned bees did not look so hot and cross. With exquisite care he submerged the bottle in a basin of water and let a few drops in on the heated inmates to cool them off.

At the tea table he had a great fright. Miss Middlerib, in the artless simplicity of her romantic nature, said:

"I smell bees. How the odor brings up—"

But her father glared at her, and said, with superfluous harshness and execrable grammar: "Hush up! You don't smell nothing!"

Whereupon Mrs. Middlerib asked him if he had eaten anything that disagreed with him, and Miss Middlerib said:

"Why, pa!" and Master Middlerib smiled as he wondered.

Bedtime at last, and the night was warm and sultry. Under various false pretenses, Mr. Middlerib strolled about the house until everybody else was in bed, and then he sought his room. He turned the lamp down until its feeble ray shone dimly as a death-light.

Mr. Middlerib dozed slowly—very slowly. When at last he was ready to go lumbering into his peaceful couch, he heaved a profound sigh, so full of apprehension and grief that Mrs. Middlerib, who was awakened by it, said if it gave him so much pain



to come to bed perhaps he had better sit up all night. Mr. Middlerib choked another sigh, but said nothing and crept into bed. After lying still for a few moments he reached out and got his bottle of bees.

It was not an easy thing to do to pick one bee out of the bottleful with his fingers and not get into trouble. The first bee Mr. Middlerib got was a little brown honey bee, that wouldn't weigh half an ounce if you picked him up by the ears, but if you lifted him by the hind leg would weigh as much as the last end of a bay mule. Mr. Middlerib could not repress a groan.

"What's the matter with you," sleepily asked his wife.

It was hard for Mr. Middlerib to say he only felt hot, but he did it. He didn't have to lie about it either. He did feel very hot, indeed—about eighty-six all over, and one hundred and ninety-seven on the end of his thumb. He reversed the bee and pressed the war-like terminus of it firmly against the rheumatic knee.

It didn't hurt so badly as he thought it would.

It didn't hurt at all.

Then Mr. Middlerib remembered that when a honey bee stabs a human foe it generally leaves its harpoon in the wound, and the invalid knew that the only thing this bee had to sting with was doing its work at the end of his thumb.

He reached his arm out from under the sheets and dropped this disabled atom of rheumatism liniment on the carpet. Then, after a second blank wonder, he began to feel around for the bottle, and wished he knew what he did with it.

In the meantime strange things had been going on. When he caught hold of the first bee, Mr. Middlerib, for reasons, drew it out in such haste that for a time he forgot all about the bottle and its redemptive contents, and left it lying uncorked in the bed, be-

tween himself and his innocent wife. In the darkness there had been a quiet but general emigration from that bottle. The bees, their wings clogged with the water Mr. Middlerib had poured upon them to cool and tranquillize them, were crawling aimlessly about over the sheet. While Mr. Middlerib was feeling around for it, his ears were suddenly thrilled and his heart frozen by a wild, piercing scream from his wife.

"Murder!" she screamed. "Murder! Oh! Help me! Help! Help!"

Mr. Middlerib sat bolt upright in bed. His hair stood on end. The night was warm, but he turned to ice in a minute.

"Where in thunder," he said, with pallid lips, as he felt all over the bed in frenzied haste, "where in thunder are them infernal bees?"

And a large "bumble," with a sting as pitiless as the finger of scorn, just then climbed up the inside of Mr. Middlerib's night-shirt, until it got squarely between his shoulders, and then it felt for his marrow, and he said calmly:

"Here is one of them."

And Mrs. Middlerib felt ashamed of her feeble screams when Mr. Middlerib threw up both arms, and, with a howl that made the windows rattle, roared:

"Take him off! Oh, land of Scott, somebody take him off!"

And when a little honey bee began tickling the sole of Mrs. Middlerib's foot, she so shrieked that the house was bewitched, and immediately went into spasms.

The household was aroused by this time. Miss Middlerib and Master Middlerib and the servants were pouring into the room, adding to the general confusion by howling at random and asking irrelevant questions, while they gazed at the figure of a man a little on in years, arrayed in a long night-shirt, pawing fiercely at the un-

attainable spot in the middle of his back, while he danced an unnatural, weird, wicked-looking jig by the dim religious light of the night-lamp. And while he danced and howled, and while they gazed and shouted, a navy-blue wasp that Master Middlerib had put in the bottle for good measure and variety, and to keep the menagerie stirred up, had dried his legs and wings with a corner of the sheet, and after a preliminary circle or two around the bed to get up his motion and settle down to a working gait, he fired himself across the room, and to his dying day Mr. Middlerib will al-

ways believe that one of the servants mistook him for a burglar and shot him.

No one, not even Mr. Middlerib himself, could doubt that he was, at least for the time, most thoroughly cured of rheumatism. His own boy could not have carried himself more lightly or with greater agility. But the cure was not permanent, and Mr. Middlerib does not like to talk about it.

Note.—Burdette's case was reported entirely independent of the cases reported by Maberly.—Editor.

## NURSING IN INFANTILE PARALYSIS. (Acute Poliomyelitis.)

BY LE GRAND KERR, M.D.

One of the most unsatisfactory things in the practice of medicine among children is the care of a victim of infantile paralysis. I use the term "infantile paralysis" simply because it is the more commonly used one to distinguish the disease, acute poliomyelitis. Until recently what knowledge we have had of the disease has been entirely inadequate to its proper care and treatment, and even with the rapid strides made in our knowledge of the disease within the past year or two the care and treatment still remain somewhat unsatisfactory.

It is idle now to attempt to deny the infectiousness and contagiousity of the disease. Because we have yet failed to determine conclusively the exact mode of infection is no excuse for inactivity in the presence of an isolated case or an epidemic.

Much of our inactivity has been occasioned by the fact that the disease does not commonly affect more than one member of a family, but this probably has its explanation in individual susceptibility. There seems to be

clear evidence that there exists an individual susceptibility to the disease, and that this susceptibility is strongly influenced by age, for in the large majority of instances the disease attacks those under the age of three years. As it is impossible to determine just which members of a family are susceptible, precautions must apply to all. In considering the nursing problems as applied to this most deforming scourge of childhood, it may be well to do so from the following standpoints: In the presence of a known epidemic, the acute stage, the care of the later stages. *In the presence of a known epidemic*, the attitude of the nurse should be one of constant watchfulness to prevent infection and also to detect at once the first signs of the disease. To prevent infection the question of removal from the affected area may arise, and in such instances the advice should be to hasten such removal. However, such a measure is usually impractical and will not be considered by the parents.

Enough of the mode of infection is

known to cause us to be very zealous in the matter of the toilet of the nose and mouth. At least every six to eight hours the nose and mouth should be cleansed with a mild antiseptic solution, and this should not be done in the usual hasty fashion, but must be done thoroughly. Any one of the many pleasant but mild antiseptic solutions may be used, if properly diluted. As such solutions must be used over a long period, spraying apparatus should not be used, but in an infant the cleansing may be done with a small glass syringe for the nose and cotton for the mouth. In older children, teaching them to douche the nose is a simple matter. The skin should be kept in the best possible condition, and this involves the use of a warm cleansing bath daily, which may be followed by the colder plunge in older children if desirable.

The diet should be restricted to those things which maintain health and promote bodily vigor. The merely pleasing things should be for the time discontinued. The diet should be such as will make the body more resistant to infection and disease, therefore the well-cooked cereals, vegetables, eggs and milk should be given in increased abundance, while meats and sweets are somewhat restricted in proportion.

It is absolutely necessary that the bowel function be performed daily, and if habit has promoted constipation no time should be lost in correcting this fault.

*In the acute stage of the disease* the same scrupulous care must be given to the nose and mouth, with the additional precaution that everything that comes into contact with the secretions from these parts must be burned or boiled. Therefore it is always better to use gauze for kerchiefs and to have separate eating utensils for the stricken child.

It is practically impossible with our

present knowledge of the disease to diagnose it before the appearance of the paralysis, but in the presence of a known epidemic there are symptoms that may be suggestive. The more suggestive ones are fever, diarrhoea, vomiting and slight cough, and I am convinced that we should be suspicious of this combination of symptoms occurring in a child under the age of five years, if they could not be positively explained upon some other basis. Then if the disease is suspected, the child should be placed in a hot blanket pack and kept there sufficiently long to induce profuse perspiration. One such application is all that is necessary, for repetition might exhaust or depress the patient. There is one precaution, however, that must be remembered; in some of these acute cases there is a transitory loss of sensibility of the child's skin, and if this is disregarded severe burning may result, as the child will not complain of the heat. Water should be given freely; in fact, its ingestion should be encouraged. For the first day or two the water should be given hot. Hot lemonade or orangeade is usually more acceptable to the children. The bowels should be immediately emptied by a hot emena (110 Fahr.), and in this should be dissolved one ounce of sulphate of magnesia and two ounces of glycerine to the pint of water. A single dose of castor oil should immediately follow the use of this enema.

Mental and physical rest must be rigidly enforced, and this means that the child should be placed in a cool, quiet, darkened room and allowed no attendant except the nurse (and in some instances the mother), and no toys.

The relaxing of this vigorous sick room regime should be most gradual and only as the marked improvement of the child's condition demands it. I must warn against the darkened



room also being an illy ventilated one, for frequently such is the case, but with judgment light may be excluded and yet perfect ventilation be secured.

The patient should not be allowed to lie upon the back, but must be turned very frequently upon either side. There are two things that we ought to avoid as far as the spine is concerned—pressure and heat.

The diet for the first twelve hours should be nothing except hot sterile water, and for the period in which fever is present it should be restricted absolutely to fluids. Even milk should not be given in its usual full strength, but is better if used as follows: Dip off the top sixteen ounces from a quart bottle of milk in which the cream has risen, and dilute it with an equal quantity or more of water, and use in place of ordinary milk.

The question will undoubtedly arise as to how long the strict isolation of the patient should be observed. There is but one safe guide, and that is the temperature, and as long as there is fever present, isolation must be strict.

*The care of the later stage* is principally directed toward the prevention or limitation of atrophy of the affected muscles. It must be recalled that the first onset of the paralysis is much more widespread than it will be later, and that within a few days after the occurrence of paralysis there will be a very considerable recovery of power in most of the muscles. But those that remain paralyzed will show a tendency to rapid degeneration and wasting, and this must be combated. As soon as the acute stage has passed, the affected muscles should be carefully but thoroughly massaged for at least fifteen minutes three or four times a day. The best lubricant to use is goose oil, because it is very absorbent, has a low melting point and leaves no greasy residue. During the epidemic of 1909, in which I was able to closely study some

sixty-five cases, I frequently used slight constriction of the affected limb to limit atrophy. The method used was simple; the nurse once daily applied a piece of ordinary rubber tubing about the limb as near to the joint as possible and gently twisted it until the whole limb showed a very slight congestion and discoloration. This constriction was kept up for ten to fifteen minutes and then the tubing removed. The tone of the musculature seemed to be most favorably affected by this simple procedure. The use of the electric current is not necessary during the first two or three weeks, but after that period its use encourages the proper exercise of the affected muscles.

When the electricity is used it has been the common practice to abandon the use of massage, but such a procedure is radically wrong. The massage is most important and must be continued, even when the electric current is used. I am constrained to emphasize the fact that electricity and massage (and particularly the latter) should be continued over a very long period. In fact, they should be continued over what may at first seem to be an unnecessarily long and hopeless period. After a time even the parents of an affected child become discouraged and are ready to become inactive, but this should be combated and the child given every possible chance for permanent relief. If any definite time could be set in which this continued effort should be carried on with the hope that it would result in relief, I should place that time at not less than three years. I am convinced that many of the distorted limbs of today are the result of discouragement lulling one into inactivity.

In the very late stages, when it seems probable that some sort of a brace will have to be worn by the child to prevent the strong, healthy

muscles of the limb from pulling against the weak, paralyzed ones and resulting in more or less deformity of the limb, the child's skin should be prepared for this mechanical restraint. Every day the parts to be subjected to mechanical pressure should be freely bathed with alcohol and salt (one ounce to the half pint) or a rather strong brine. Such preparation will save considerable annoy-

ance later on, and will inevitably add much to the little one's comfort.

Throughout all stages of the disease every advantage must be taken of securing perfect elimination of waste products, a diet somewhat more than necessary for the child's immediate needs and hygienic surroundings of the best obtainable kind.—*The Trained Nurse and Hospital Review*.

## DROPSY, HYPERTROPHY OF THE HEART, TUBERCULOSIS, SCROFULOSIS.

### HOSPITAL REPORTS.

#### LONG ISLAND COLLEGE HOSPITAL.\*

SERVICE OF PROF. S. G. ARMOR, M.D.

April 16, 1875.

Reported by Walter Lindley, M.D., House and Ambulance Surgeon, E. D. Hospital, Brooklyn, N. Y.

#### Dropsy.

The first case presented at the clinic today was a case of dropsy. The leading points in the clinical history of dropsy were clearly presented. It is not a substantive disease; it is a mere symptom, the result of some general or local morbid condition. This may consist in mere mechanical interference in the return of venous blood. This is a most common cause. The effusion will, of course, depend on the location of the obstruction. If the point of obstruction is the right side of the heart, we shall have more or less general dropsy. If on the left side of the heart, we shall have œdema of the lungs. The liver is a frequent seat of obstruction. When the portal vein is obstructed from any cause, we have ascites. In short, a local obstruction produces a local dropsy. We carry this general fact with us to the bedside, and find it verified by daily observation. Other elements also en-

ter into the causation of dropsy, such as a feeble and relaxed state of the vessels and tissues, an unhealthy, watery condition of the blood, the withdrawal of nervous influence in connection with the vessels, deficient power of absorption on the part of the lymphatics, and, above all, disease of the kidney, by which abluen is allowed to escape into the urine. Now, in the sense of these general facts before us, let us examine the patient presented to us today. You will remember this case as having been before you at our clinic during the early part of the term. We learn from the patient that he is æt. forty, a laborer, and has suffered from rheumatism; and in seeking for the cause of his dropsy, we very naturally found it in obstructed cardiac circulation, for there is an intimate relation between rheumatism and heart disease. Gentlemen of the clinical section of today will have the opportunity of locating a so-called val-

\*The following appeared in *The Medical and Surgical Reporter* (Philadelphia), May 8, 1875, and gives us a graphic idea of the limitations at that time.

vular murmur. The first fact that will attract their attention is, that the morbid sound is heard over the apex of the heart, and that it is synchronous with the contraction or systole of the heart. These two facts settle the matter—first, that it is a mitral murmur; second, that it is a regurgitant murmur. Now, as the result of this constant regurgitation, there is a chronic passive hyperæmia of the lungs. They cannot empty themselves of their circulation, and the consequence you see. The patient is short of breath; has labored breathing; is restless, and presents a general puffy appearance. On further examination, you detect extensive, moist crepitations in the lung substance, the result of pulmonary œdema; and since the patient was last here, the effusion has been extending to the limbs and cellular tissue generally. A fortnight ago we put this patient on a solution of iodide of potash in the infusion of digitalis, sustaining him at the same time with tonic doses of quinine. But, notwithstanding our medication, the dropsical trouble has steadily and gradually increased, and he presents himself today an opprobrium to our art. For reasons that then appeared to me satisfactory, I desired to give the patient the benefit of a thorough saturation in the iodide of potash. But I now propose to go back to a good old treatment for dropsy, popular a quarter of a century ago, and like many good old things, lost sight of in the eager pursuit of something newer and better. I allude to the old-fashioned combination of calomel, squills and digitalis. For general anasarca dropsy, complicated with pulmonary œdema, I never have found anything else half so reliable. I prefer, however, to give the calomel and squills by themselves, and the digitalis in infusion. I regard this as an improvement on the old combination. There is something in the action of mercury in equalizing abdominal

circulation, and thereby promoting secretion and absorption, that we find in no other agent, and, when combined with digitalis, it is one of our most valuable diuretics, although, of course, we must be careful to avoid the constitutional action of the drug. In this connection, let me call your attention to purely local dropsies in closed serous sacs. What can we accomplish by drugs in the removal of such accumulation of fluid? In my judgment, almost nothing. It is worse than folly to be constantly medicating patients to get rid of such accumulations. After a time we wake up to the fact that we have, perhaps, ruined the patient's stomach, and accomplished nothing more, by our drugs. If the fluid is serous, let it alone, it will take care of itself. If it is purulent, remove it with the aspirator, and attend to the patient's general health.

#### **Hypertrophy of the Heart.**

While on the subject of heart disease, let me present you another interesting case. This lady is, as you observe, very slender, her muscles thin and flabby, and she has great disturbance of circulation. Our attention is at once directed to her heart, and what do we find? The first thing that attracts our notice is the unusual impulse of the heart. You can observe, even at a distance, the strong impulse, as I apply my hand to her chest, and this impulse, let me say to you, is widely extended. This slender lady has a heart large enough and strong enough for a giant. But notwithstanding the remarkably strong impulse of the heart, the patient has a singularly feeble pulse at the wrist; the arteries are badly filled. Now I ask you to carefully note the facts in the order of their presentation: First, strong heart-beat; second, feeble pulse at the wrist. In further exploration by the stethoscope, I find a murmur over the base of the heart at the third interspace, and on tracing it I find it prop-



agated upward, and more on the right than on the left side of sternum. Now what is it? My clinical section answer me that it is an aortic murmur. True, but is it a direct or regurgitant? When I state the further fact that I hear the sound in the systole of the heart, you at once answer that it is an aortic direct. But you did not really need to listen to the two sounds of the heart, to determine the question as to the direct or regurgitant character of the murmur; the imperfectly filled arteries completed the diagnosis. In aortic regurgitant representing valvular insufficiency, we have, as a rule, a jerking, abrupt and hard pulse, with rapid "fall backs," sometimes described as "balls of blood shot under the finger." There is nothing of the kind in this case; the pulse is feeble. It is a typical case of direct aortic lesion, the tendency of which is to produce pure hypertrophy of the left ventricle, which compensates for the obstruction, so long as there is no degeneration. In a prognostic point of view, it is important that we make an accurate diagnosis in these cases. A direct aortic is one of the simplest and most harmless lesions of the heart; a regurgitant leads to speedy difficulty by the constant overstrain and consequent degeneration of the arteries. Now what shall we do for the case? Very little. Nature has been already kind to the lady, by strengthening the walls of the heart to overcome the resistance, and we had better not rudely interfere, with our cardiac sedatives and stimulants, as our fancy might dictate. It is a good and safe rule, never to interfere with nature when she is doing well enough. In this case we have no fault to find with her. All we have to fear is degeneration of the heart's walls; against that we should guard as best we can, and we can in no way do it better than by looking after the patient's general health. Her nutritive system should

be well sustained. Her diet should be nutritious, such as eggs, meat, milk, etc. She should also take *moderate* open-air exercise. Beyond this general course, I have nothing to suggest. The heart, it is true, is acting with unusual vigor; but we must remember, at the same time, that the pulse is feeble. I can see no indication to either attempt to strengthen or restrain the heart's action, and I shall, therefore, follow the very safe rule already suggested.

#### Tuberculosis—Scrofulosis.

The next case I present you is one of great interest. It belongs to the order of constitutional diseases, and represents, with most typical accuracy, what is known and recognized as the scrofulous cachexia. I ask you to look at the boy as he stands before you; and listen to the history of his young life, as stated by his next friend, for we are told that both his father and mother are dead. Scrofulosis is evidently a hereditary disease. This little patient has doubtless been in a pathological condition ever since the first evolution of the germ of his existence. He has been "born into the world half made up." A glance at his remarkably white skin, swollen abdomen, flabby, spongy flesh, large head, curved spine, pigeon breast and enlarged lymphatic glands, shows at once the perverted condition of the nutritive system, and this perversion is peculiar to an illy-balanced organism, which he has derived from his ancestry.

The relation of scrofulosis to tuberculosis, although an old question of debate, has been recently invested with peculiar interest. Heretofore, the views of Lænnec have prevailed, viz.: that "phthisis always depends upon tubercle." He regarded tubercle as a primary neoplasm, i.e., a new formation of a peculiar character, and utterly denied that tubercular matter ever had its origin in inflammation.

Lænnec had, and has today, many followers.

More recently, however, we have the "new views" of the German School, who teach that, in many cases, the disease is local, i.e., due to causes acting directly upon the lungs, or to morbid conditions seated in these organs, and to this view, although educated in the Lænnec school, every day clinical observation more and more inclines me. You will have abundant opportunities to study the facts here, in most varied cases that will present themselves in our clinic; and I hope we may study them, not as partisans, but as seekers after truth. To Niemeyer, as a representative of German thought, we are indebted for the fact that tuberculous disease is seen in persons whose lungs or other organs contain old caseous deposits, the deposit of tubercle being a *secondary* condition. In comparatively rare cases, however, he confesses that tubercle may proceed from other causes, of whose nature we are ignorant. At the present time, therefore, according to the German school of pathology, tubercle is represented in two typical modes of appearance; one local and inflammatory, the other disseminated and constitutional.

Now, in the case before us, you notice a tendency to enlargement of the lymphatic glands, in enlarging tonsils, dition of the glands often escapes observation; it appears to come on spontaneously; it is often attributed to colds; whereas, in the background, if we carefully study the case, we shall detect the true scrofulous diathesis. It may first manifest itself in non-inflammatory engorgement of the lymphatic glands, in enlarged tonsils, eruption upon the face, otorrhœa, conjunctivitis, ulceration of the cornea and tendencies to croup. All such constitutions in childhood, tend in the direction of pulmonary phthisis in more advanced life. I do not mean to

say that the scrofulous diathesis depends upon "scrofulous material" in the blood. This view is almost universally abandoned, and I think justly so. The alterations that take place are evidently of an inflammatory nature; we have a low grade of inflammation occurring in a peculiar diathesis; there is a constitutional tendency to glandular enlargement from profuse cell formation, known by the modern term, "cellular hyperplasia." The tendency of this cellular hyperplasia occurring in scrofulous constitutions is in the direction of "cheesy degeneration," which degenerate material, when softened, is taken up by the absorbents and capillaries, carried to the lungs, and there deposited in the form of capillary emboli, and around these emboli tubercular matter is deposited. In some forms of pneumonia, especially chronic catarrhal pneumonia occurring in the scrofulous constitution, the same results take place.

Now, it may be asked, What good is to be derived from the change in views of the pathology of consumption? I answer that good things may always be expected to follow true things. Let us seek for truth, and trust to the practical application that may result therefrom. If we clearly recognize a consumptive diathesis, an underlying scrofulous inflammation that gives rise to the "infiltrated granular tuberculosis" of the older pathologists, it invests the disease at once with a larger element of hope. It puts us in the way of adopting a more rational prophylaxis. It suggests the importance of regulating all the agencies by which we live, such as diet, muscular exercise in the open air, sunlight, and such medicinal substances as strengthen and build up the nutritive system.

With children showing a tendency to scrofulosis in early life, a rational and efficient hygienic influence should

be insisted upon and carried out to the fullest extent. The "new views" stimulate us to new endeavors to devise means for the arrest of this fearful malady; whereas, according to the old view, it is useless to attempt, even in the early stage of the disease, any rational therapeutics, as the lungs are the seat of a neoplastic deposit, the structural changes are beyond the reach of art, the result is merely a question of time. For this little patient we shall prescribe fresh air, an out-door life, warm clothing, good, nourishing food, with cod-liver oil and the hypophosphates.

In this connection, and before dismissing the patient, let me attract your attention to two distinct forms of scrofulosis. In the one form there is over-production of fat in the subcutaneous cellular tissues; there is an indolent state of the processes of constructive and destructive assimilation; the expression is heavy and listless; the features coarse; the head large; the upper lip tumid; the abdomen swollen; the servical glands enlarged; and the flesh flabby, spongy and phlegmatic. In the other, the muscles are thin and soft; the weight light; the teeth handsome; the hair soft; the skin clear and white; there is a bluish appearance of the subcutaneous veins, with a peculiar transparent condition of the sclerotica.

Authors have given to the first form described the name torpid, or phlegmatic; to the other, erethitic. Practically considered, one form is improved by cod-liver oil and the phosphorized fats; the other not. The torpid variety is improved by iodine and its compounds; the erethitic is not. There is no lack of examples of either of these forms of disease, and both tend in the direction of consump-

## THE CARNEGIE FOUNDATION.

**How Not to do It.**—Statistics seem to show that both in matriculants and graduates, the medical schools of the United States have a much smaller number to show in the last few years than in the years preceding; that year by year fewer men enter the medical schools and that fewer graduate. This is considered a great gain and a thing to exult in, done, of course, by raising the standards, by Carnegie Foundations, and by the special investigations of the American Medical Association. But how about the growth of "isms" in the last ten years and the decided trend of legislation by which they are ennobled and placed on the footing of State recognition, or, as in the case of Christian Science, of State toleration? Are there fewer ignorant men and women practicing on the easily deluded public than before? Is it not very much the other way? Never since the States existed has physical and mental quackery and the use of drugs by those ignorantly prescribing flourished so riotously, and the process we imagine will still go on, the properly (?) educated physicians grow less in number, and the medical freaks hold their heads higher, while new freaks of previously undiscovered species spring to light day by day. Slapopraxy and spankopraxy and wireless therapy are already gazing eagerly over the wall that for a moment stays their triumphant career and shuts them away from the dear people, the willing gulls, their legitimate prey; but wait a year or two, and, lo! they will have a representative on the examining boards and be as good as the best. Thus do we raise the standard for them! Does it pay? — Edward Willard Watson, M.D., in *Medical Notes and Queries*.





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## EDITORIAL

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### WHOLESALE ASSASSINATION

Twenty-four years and ten months ago the writer of these lines took the copy for No. I., Vol. I., of the Southern California Practitioner to the job office of the Los Angeles Daily Times to be printed. From that day to this the Southern California Practitioner has never missed an issue, and it has always been published by the Times.

During all those years Gen. Harrison Gray Otis has been the editor and controlling proprietor of the Times, and has built it up until it has become one of the great newspapers in the civilized world.

General Otis is a strong, stalwart, courageous, imperative, successful, patriotic citizen.

As a principle in life, as a positive tenet in the administration of the

Times, he has steadily advocated the Open Shop—Industrial Freedom.

This position is stated by General Otis in a few words as follows:

“We stand for the doctrine that every law-abiding American citizen has the lawful right to pursue, unhampered and undisturbed, any lawful occupation of his choice, in a lawful way, and to be protected in that right by the whole power of the State and of the nation, if need be.”

Organized labor has fought the Times, has boycotted the Times, has threatened the Times, but all to no purpose. That great daily has day by day, week by week, year by year, rapidly increased in strength, influence and circulation. This was too much for its enemies, and on Satur-

day, October 1st, at 1:15 a.m., the Times building was completely destroyed by dynamite and the fire that followed, and twenty-three employees met a horrible death. Gen. Otis was on his way from the City of Mexico, where he had been attending the Mexican Centennial as a special commissioner of the President of the United States.

He arrived home at 3:30 that afternoon, but meanwhile his son-in-law, Mr. Harry Chandler, the business manager of the Times, ably assisted by Harry Andrews, the managing editor, had cared for the wounded survivors and issued a four-page edition of the Times. Gen. Otis on his arrival home that afternoon received the warm, sympathetic welcome of many friends. He then issued the following statement:

"In the early morning of October 1, the startling tidings of the terrible conspiracy against The Times, myself and my loyal co-workers in the cause of industrial freedom reached me while en route home from the City of Mexico.

"I knew well enough beforehand the desperate nature of the conspiracy against my newspaper and the desperate character of some of the conspirators; yet I could not believe, until I was forced to believe that they would go to the extremes to which they did go in the use of dynamite, resulting in the blowing up of the building and its subsequent destruction by the resultant conflagration.

"More than all else do I deplore the sad loss of life. I, with my co-own-

ers in The Times property, can endure the physical loss which the destruction of the building involves, with its expensive plant of modern printing machinery and all necessary accessories of an up-to-date American newspaper. We can stand this loss with comparative complacency and with the courage and endurance of men who know what it is to meet the ordinary disasters of business life. But we are overcome with sadness by the fact that so many of our loyal and faithful workmen were slain by the hands of conspirators and assassins, for this infamous deed was, in fact, an act of assassination. We can repair the physical damage done and restore the great property destroyed, but we cannot restore life taken away. And this is the great burden which weighs on our hearts in the face of this frightful calamity.

"The conspirators have blown up and destroyed The Times building and wrecked its splendid plant and printing machinery, but they have not destroyed, and cannot destroy, The Times, nor the spirit of The Times, nor the principles for which it stands and will continue to stand. We shall go on fighting for these principles, contending steadfastly for liberty under law and for the priceless cause of industrial freedom. This cause will never lack defenders, and among these defenders the editor and proprietors of The Times are proud to stand in the foremost ranks. We will continue to stand there until the end, firm in our belief that this cause must ultimately prevail not only in Los An-

geles, but throughout the state and the country, for it is a cause not to be abandoned or sacrificed, and to surrender it to conspirators, bomb-throwers and anarchists would be impossible to brave American citizens knowing their rights under the Constitution and the law and determined to protect them at all hazards. So the battle must go on and we, who are in the midst of it, are profoundly confident of the ultimate outcome, which will surely be complete triumph for liberty under law and for the cause of freedom in the industries, which is altogether as sacred as are political freedom, religious freedom or personal freedom, none of which can be sacrificed without leading to the final destruction of the republic.

"The work of physically rehabilitating The Times, already begun before my arrival home yesterday afternoon by my brave, efficient and faithful associate, Harry Chandler, will be continued until the establishment is once more complete, full-fledged and panoplied for the war which we are deter-

mined to prosecute, so long as life lasts, in defense of the great principles for which the Los Angeles Times and its responsible owners stand, and will continue to stand.

"I want to express here, at the very earliest moment possible, my profound gratitude to unnumbered friends in the state, in the country and in the nation, who have already conveyed their sympathy to us in multitudes of warmly-worded telegrams, and in countless oral expressions showing the profound and deep-seated sentiments of good-will which they bear toward my newspaper, myself and my co-workers in its production. These expressions of sympathy impel us with the more profound determination to go on in the course which we have marked out for the Los Angeles Times and for ourselves, as its responsible conductors.

HARRISON GRAY OTIS.

The Times did not miss an issue. The leading editorial of The Times on the second day after the crime was as follows:

"The one place in The Times building that was not shattered by the explosion was its tower, and the one object that was not blackened by the smoke was the stone eagle, which stands as ever perched upon the summit of the tower, with wings outstretched.

"O you anarchic scum, you cowardly murderers, you leeches upon honest labor, you midnight assassins, you whose hands are dripping with the innocent blood of your victims, you against whom the wails of poor widows and the cries of fatherless children are ascending to the Great White Throne, go, mingle with the crowd, on the street corners, look upon the crumbled and blackened walls, look at the ruins wherein are buried the calcined remains of those whom you murdered, and then look up—if you dare raise your eyes in that direction—and behold the stone image of the eagle that you could not reach. Behold the emblem of the piercing eyes that will discover you. Freedom that



you vainly endeavored to destroy, the Eternal Justice that will surely reach you both now and hereafter."

We believe the readers of the Southern California Practitioner will justify us in thus preserving this historical record of an inhuman deed in human history.

### LOS ANGELES MEETING A. M. A. 1911

With that remarkable virility and executive ability with which he is so richly possessed, Dr. H. Bert Ellis is rapidly arousing interest in the approaching meeting. He has already opened headquarters in Bradbury Building, Third and Hill Sts., and committee meetings are being held and funds are being collected.

Dr. Ellis has issued the following circular of information that should be read with care by every member of the profession:

#### THE LOS ANGELES MEETING OF THE AMERICAN MEDICAL ASSOCIATION TO BE HELD IN JUNE, 1911

Every physician is, of course, aware of the fact that the American Medical Association will meet in Los Angeles in June, 1911.

The exact date will be decided in October by the Board of Trustees of the American Medical Association. It is thought that the Board will decide upon the latter part of June. As the weather conditions at that time are usually good and as such a time would allow the members of the profession who are engaged in teaching in eastern medical institutions to come West without serious interference with their collegiate work.

The meetings of the American Medical Association in recent years have all been most successful, and the community in which the meeting was held has always gone out of its way to give the visiting members a pleasant and profitable time.

The Board of Trustees of the American Medical Association has appointed Dr. H. Bert Ellis as the Local Chairman in charge of arrangements, and, in conference with the other officers of the Society, the local committees named below have been appointed. Few of these committees are as yet completed, and the full roster of membership of these various committees will soon be printed. Our Association is striving to profit by the experience of other cities which have entertained the American Medical Association in the past, and an inspection of the committees will show that the work has been sub-divided so that a definite responsibility will be placed on each committee.

Some of these committees will have to begin their work at once. Others will have their greatest work before them later on.

The Finance Committee, of course, must get its work under way at the earliest opportunity, and as soon as that committee's full roster is made up, it will be printed in the Southern California Practitioner.

There is just one word more to say about the work of the Finance Committee. It is an unpleasant task to ask members of the profession for donations, but if we are to entertain the American Medical Association as it has been entertained in recent years in other cities, the profession of California is obligated to make some effort in the way of proper entertainment.

It will mean much to Southern California if the eminent physicians and surgeons who will come to Los Angeles next year go away with a proper conception of this great section, and it behooves the profession to rally to this work, so that the arrangements which may be made for the scientific and social features of the meeting will be such as to be long remembered by those who attend.

Every member of the Society will have his part to play in the entertainment, and every member of the Los Angeles County Medical Association is considered to be a member of the Committee on Arrangements and Entertainments.

As time goes on, and the work in this direction progresses, this Bulletin will contain announcements of what is being done. Already the Finance Committee has received assurances of generous subscriptions, but it is not enough that a handful of men should help, but that every member should give somewhat in proportion to his or to her means.

The Sixty-second Annual Session of the A. M. A. which is to meet in Los Angeles next year should be remembered as the best meeting which that great, powerful organization has ever had.

Be sure to do your part.

The incomplete committee appointments are as follows:

#### Committees for American Medical Association

##### Meeting, Los Angeles, June, 1911 Note

The various committees are supposed to do the work covered by their names and as per the instructions from the Executive Committee.

Each committee consists of a central group of three to five physicians who constitute the executive body of the committee. This executive body has the power to appoint as many additional members as in the judgment of the executive group will expedite the work of the committee.

One of the members of the central group shall be designated as chairman of the committee, and the other members as vice-chairmen.

The Executive Committee shall consist of a central group of five members, plus the chairmen of the other committees as advisory members.

The central Executive Committee shall be the central committee and shall have the general supervision of all the work of the A. M. A. meeting, and shall pass on all expenditures, and through it the other committees shall work and report.

The chairman and secretary of the Executive Committee in accordance with past custom of the A. M. A. shall be known as the general chairman and the general secretary.

## 1. Executive Committee.

Dr. H. Bert Ellis, Chairman.  
 Dr. Walter Lindley, Treasurer.  
 Dr. George H. Kress, Secretary.  
 Dr. W. Jarvis Barlow.  
 Dr. Fitch C. E. Mattison.  
 And the chairman of each standing committee.

## 2. Finance Committee (Incomplete)

Dr. Fitch C. E. Mattison, Chairman.  
 Dr. Chas. Bryson, Vice-Chairman and Secretary.

Dr. W. T. McArthur, Vice-Chairman and Treasurer.

## District Finance Chairmen

Pasadena, Dr. H. H. Sherck.  
 Pomona, Dr. Frank Garcelyn.  
 Santa Monica, Dr. W. H. Kiger.  
 Long Beach, Dr. A. C. Sellers.

(Note.—For complete committee see end of this list.)

## 3. Committee on Bureau of Information

(Incomplete)

Dr. I. Y. Oldham, Chairman.  
 Dr. C. H. Whitman, Vice-Chairman.  
 Dr. Rea Smith, Vice-Chairman.  
 Dr. R. F. Hestreiter, Vice-Chairman.

## 4. Committee on Reception at R. R. Stations

(Incomplete)

Dr. W. R. Malloy, Chairman.  
 Dr. George A. Laubersheimer, Vice-Chairman.

Dr. G. A. Sonogus, Vice-Chairman.

Dr. E. J. Cook, Vice-Chairman.

Dr. Raymond G. Taylor.

## 5. Committee on Hotels and Headquarters

(Incomplete)

Dr. W. LeMoine Willy, Chairman.  
 Dr. Titian J. Coffey, Vice-Chairman.  
 Dr. E. A. Bryant, Vice-Chairman.

## 6. Committee on Halls (Incomplete)

Dr. John T. Ferbert, Chairman.  
 Dr. Fred C. Becknell, Vice-Chairman.  
 Dr. E. W. Fleming, Vice-Chairman.  
 Dr. Wm. Dodge, Vice-Chairman.

## 7. Committee on Section Meeting Places

(Incomplete)

Dr. Albert Sosland, Chairman.  
 Dr. Clarence W. Pierce, Vice-Chairman.  
 Dr. Fred C. Shurtleff, Vice-Chairman.

Section on Practice Medicine, Dr. Dudley

Fulton.

Section on Surgery, Dr. E. R. Smith.

Section on Obstetrics, Dr. M. L. Moore.

Section on Diseases of Women, Dr. Carl

Kurtz.

Section on Ophthalmology, Dr. T. J. McCoy.

Section on Laryngology and Otolaryngology, Dr.

Hill Hastings.

Section on Nervous and Mental Diseases.

Dr. H. G. Brainerd.

Section on Preventive Medicine and Public

Health, Dr. L. M. Powers.

Section on Diseases of Children, Dr. L. M.

Moore.

Section on Pharmacology and Therapeutics.

Dr. Theodore G. Davis.

Section on Dermatology, Dr. Ralph Will-

iams.

Section on Pathology and Physiology, Dr.

John C. Colliver.

Section on Stomatology, Dr. Frank Cook.

## 8. Committee on Post-Office, Telephones, etc.

(Incomplete)

Dr. C. B. Nichols, Chairman.  
 Dr. A. C. Rogers, Vice-Chairman.  
 Dr. Guy Cochran, Vice-Chairman.

## 9. Committee on Registration of the Los Angeles Members (Incomplete)

Dr. W. W. Beckett, Chairman.  
 Dr. H. M. Voorhees, Vice-Chairman.  
 Dr. E. M. Lazard, Vice-Chairman.  
 Dr. H. G. Marxmiller, Secretary.

## 10. Committee on Registration of California

Members (Incomplete)

Dr. Jos. M. King, Chairman.  
 Dr. Langley Porter, Vice-Chairman.  
 Dr. W. W. Henselock, Vice-Chairman.  
 Dr. Herbert P. Barton, Vice-Chairman.

## 11. Committee on Commercial Exhibit

(Incomplete)

Dr. W. H. Kiger, Chairman.  
 Dr. Chas. L. Zerfing, Vice-Chairman.  
 Dr. E. T. Dillon, Vice-Chairman.

## 12. Committee on Printing (Incomplete)

Dr. J. H. Seymour, Chairman.  
 Dr. C. C. Downing, Vice-Chairman.  
 Dr. J. S. Hall, Vice-Chairman.

## 13. Committee on Program (Incomplete)

Dr. O. G. Withers, Chairman.  
 Dr. F. Clarence Moore, Vice-Chairman.  
 Dr. Frank D. Ballard, Vice-Chairman.

## 14. Committee on Badges (Incomplete)

Dr. F. M. Pottinger, Chairman.  
 Dr. James I. Fisher, Vice-Chairman.  
 Dr. E. W. Steadman, Vice-Chairman.

## 15. Committee on Non-Affiliated Associations

(Incomplete)

Dr. Granville MacGowan, Chairman.  
 Dr. J. H. McBride, Vice-Chairman.  
 Dr. W. H. Roberts, Vice-Chairman.  
 Dr. Henry Stehman, Vice-Chairman.

## 16. Committee on Entertainments (Incomplete)

Dr. Chas. W. Bryson, Chairman.  
 Dr. F. C. H. Fahl, Vice-Chairman.  
 Dr. A. T. Newcomb, Vice-Chairman.

## 17. Committee on Section Entertainments

(Incomplete)

Dr. Andrew Stewart, Lobbyman, Chairman.  
 Dr. W. W. Richardson, Vice-Chairman.  
 Dr. W. M. Lewis, Vice-Chairman.  
 Dr. A. L. Madelish, Vice-Chairman.

## 18. Committee on President's Reception

(Incomplete)

Dr. W. Jarvis Barlow, Chairman.  
 Dr. Norman Bridge, Vice-Chairman.  
 Dr. Wm. A. Edwards, Vice-Chairman.  
 Dr. Milbank Johnson.

## 19. Committee on Press and Publicity

(Incomplete)

Dr. George H. Kress, Chairman.  
 Dr. Walter Lindley, Vice-Chairman.  
 Dr. F. Gregory Carter, Vice-Chairman.

## 20. Assistant Editor of the Bulletin

(Incomplete)

Dr. Donald J. Frick.

## 21. Committee on Scientific Exhibit

(Incomplete)

(Appointed by the American Medical Association Committee)

Dr. Stanley P. Black, Los Angeles Representative.

## 22. Committee on Reception to Ladies

(Incomplete)

(To be appointed.)

## Finance Committee

Dr. Fitch C. E. Mattison, Chairman.  
 Dr. H. H. Sherck.  
 Dr. W. T. McArthur, Treasurer.  
 Dr. W. H. Kiger.  
 Dr. Charles W. Bryson, Vice-Chairman.  
 Dr. Frank Garcelyn.  
 Dr. D. W. Edelman, Secretary.  
 Dr. A. C. Sellers.  
 Dr. George Abbot, Dr. J. M. Armstrong, Dr. Elliott Allen, Dr. F. L. Anton, Dr. C. B. Adams, Dr. Chas. E. Atkinson, Dr. W. W. Armstrong, Dr. D. C. Barber, Dr. W. T. Bishop, Dr. J. J. Bleeker, Dr. W. D. Babcock, Dr. A. L. Bryant, Dr. Geo. Allen Balesley, Dr. Rose T. Bullard, Dr. H. T. Canes, Dr. Francis E. Carter, Dr. Jos. D. Coudie, Dr. Wm. T. Clarke, Dr. J. E. Condes, Dr. Edith J. Claypole, Dr. J. K. Carson, Dr. J. B. Carter, Dr. M. S. Cramer, Dr. E. J. Cook, Dr. Wm. D. Dilworth, Dr. N. C. Dunsmore, Dr. C. W. Decker, Dr. Wm. Dodge, Dr. A. David-

son, Dr. T. Davidson, Dr. George Deacon, Dr. E. W. Earing, Dr. C. H. Earle, Dr. A. Fenyes, Dr. G. A. Fielding, Dr. Alfred Fellows, Dr. James T. Fisher, Dr. Sherwin Gibbons, Dr. E. H. Garrett, Dr. F. H. Gordon, Dr. Randall Hutchinson, Dr. John R. Haynes, Dr. E. W. Hanlon, Dr. Mary E. Hagadorn, Dr. G. L. Huff, Dr. Wm. E. Hibbard, Dr. Winslow Hunt, Dr. S. J. Hindman, Dr. Milbank Johnson, Dr. J. Addison Jackson, Dr. J. F. T. Jenkins, Dr. Chas. Lee King, Dr. Jos. Kurtz, Dr. Geo. W. Lasher, Dr. A. A. Libby, Dr. C. D. Lockwood, Dr. George J. Lund, Dr. Andrew S. Lobingier, Dr. Thomas J. McCoy, Dr. C. L. Magee, Dr. Wm. E. McCoy, Dr. R. H. MacKerras, Dr. A. L. MacCleish, Dr. J. G. MacKey, Dr. Thomas R. McNab, Dr. Lewis P. Morton, Dr. J. H. Martindale, Dr. E. G. Mattison, Dr. H. G. McNeil, Dr. E. H. McMillan, Dr. Albert Moore, Dr. P. R. McArthur, Dr. J. Ross Moore, Dr. Frank W. Miller, Dr. N. H. Morrison, Dr. A. D. S. McCoy, Dr. C. W. Murphy, Dr. T. C. Myers, Dr. Philip Newmark, Dr. H. Nadeau, Dr. Thomas J. Orbison, Dr. E. O. Palmer, Dr. W. H. Parker, Dr. F. M. Pottenger, Dr. W. S. Philip, Dr. Sumner J. Quint, Dr. J. M. Radebaugh, Dr. E. L. H. Swift, Dr. B. Sassella, Dr. A. F. Speicher, Dr. O. R. Stafford, Dr. J. T. Stewart, Dr. C. G. Stivers, Dr. P. H. Sunde, Dr. E. B. Sweet, Dr. H. E. Southworth, Dr. J. K. Swindt, Dr. Henry Sherry, Dr. Herbert F. True, Dr. Raymond G. Taylor, Dr. A. C. Thorpe, Dr. J. W. Trueworthy, Dr. A. Tyroler, Dr. J. H. Utley, Dr. S. Y. Van Meter, Dr. L. G. Visscher, Dr. Carl C. Warden, Dr. R. Wernigk, Dr. Edwin H. Wiley, Dr. Elbert Wing, Dr. J. W. Wood, Dr. Louis Weber, Dr. W. L. Zuill, Dr. Francis O. Yost.

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### DR. McCORMACK'S VISIT TO ARIZONA

Dr. J. N. McCormack, Chairman of the Committee on Organization of the American Medical Association, will spend a week (probably the third week in November) in Arizona, organizing and encouraging good will in the ranks of the medical profession and instructing the public on matters pertaining to medicine and public health.

He will probably spend a day in Phoenix, Tucson, Bisbee, Globe and Prescott, and will hold two meetings in each town. In the afternoon, he will meet with and talk to the physicians of the town and county, and in the evening will address a public meeting of the townspeople.

Dr. McCormack has been very successful in strengthening organization in the medical profession throughout the United States and in arousing public interest in the nature and prevention of disease. His visit to Arizona will certainly be productive of great benefit if the different county societies will make proper arrangements for his meetings and if the members of the profession will make every effort to attend.

The officers of the different county medical societies should begin at once to make arrangements for Dr. McCormack's visit and to arouse interest in this work. Meetings should be thoroughly advertised and a concerted effort made to have every medical practitioner in each county take an active interest in this work.

Prescott, Ariz., J. W. F.  
October 1, 1910.

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### AMERICAN MEDICAL EDITORS ASSOCIATION

Dr. Joseph MacDonald, Jr., of New York, the president, is actively at work making arrangements for the annual session in Los Angeles next June.

He has already received assurances of a large attendance.

The banquet will probably be one of the most brilliant functions during A. M. A. week.

The editor of the *Southern California Practitioner*, being *locum tenens*, has received letters from various parts of the country—one from London—showing far-reaching interest in this editorial gathering.



## ADVERTISERS AND CONTRIBUTORS

All copy was destroyed in the Times building.

We have no list of copy on hand.

We ask all contributors who had sent in copy to send us duplicate manuscript. The Kress History of

Medicine of Southern California was being delivered, and about three-fourths of the copies of this history remained undelivered, and were destroyed. We understand that it is proposed to photograph and reproduce this history page by page, so that each subscriber will receive a copy.

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## EDITORIAL NOTES

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Dr. M. B. Huff of Corona has located in Los Angeles.

Dr. E. H. Sawyer, formerly of Los Angeles, has located in Banning.

Dr. W. B. Coffey of San Francisco recently spent a few days in Los Angeles.

Dr. J. F. Breyer of Pasadena has been appointed Medical Examiner of Throop Institute.

Dr. Lawrence L. Lindsey, formerly of Los Angeles, has located in Brawley, Imperial Valley.

Dr. Charles A. Anderson of Los Angeles has been enjoying two weeks on an Arizona cattle ranch.

Dr. W. Harriman Jones of Long Beach has returned home from a three months' trip through Europe.

Dr. Charles LeRoy Lowman has moved his offices to the Auditorium Bldg., Fifth and Olive Sts., Suite 900.

Dr. Frank Gordon of Los Angeles has been appointed a member of the Municipal Humane Animal Association.

Dr. E. McWhitt of Miami, Ariz., and Dr. F. E. Shine of Bisbee, have been spending a few days in Los Angeles.

Surgeon W. H. Bucher, Medical Corps, United States Navy, retired,

is spending the winter at Kingman, Arizona.

Dr. Burdette S. Frary, formerly of Seligman, Arizona, has removed to Los Angeles, and has opened offices in the Story Building.

Lieutenant C. E. Yount, Medical Corps, Arizona, National Guard, attended camp manoeuvres at Camp Ascadero with his regiment.

Dr. A. M. Tuthill, surgeon for the Dodge-Phelps interests in Morenci, Ariz., has been enjoying a vacation with friends in Los Angeles.

The intramuscular and intravenous injection of Ehrlich's 606 (dioxydiamidoarsenobenzol) has given remarkable results in the treatment of syphilis and malaria.

Dr. Le Moyne Wills, the well-known Los Angeles surgeon, has been reappointed member of the California State Board of Health by Governor Gillette.

A very earnest address by Dr. S. Adolphus Knopf in favor of the Owen Bill for the establishment of a Federal Department of Health is appearing in many eastern journals.

Dr. C. D. Dickey of San Bernardino is building a home in Los Angeles.

Dr. W. S. Davis is president of the Board of Health of Fullerton and Dr. C. L. Rich is health officer.

Dr. A. M. Tuthill of Morenci, and Dr. B. B. Moeur of Tempe, have been elected delegates to the Constitutional Convention of Arizona, which meets in Phoenix in October.

Dr. Randolph W. Hill has returned to Los Angeles from his European tour. He was married in San Francisco June 28th, and now living at the Alexandria, with offices in the Byrne Bldg.

Captain Knute Nelson, Medical Corps, United States Army, has taken charge of the Post Hospital at Whipple Barracks, succeeding Captain C. L. Cole, who was transferred to Denver.

Dr. Kenneth W. Allen has located in San Fernando, Los Angeles County.

Dr. J. C. Hearne of San Diego has announced that he will immediately build a reinforced concrete hospital to cost \$100,000.

Major Chas. N. Barney, Medical Corps, United States Army, retired, formerly connected with the Fort Bayard Sanatorium, at Silver City, New Mexico, is spending the winter in Prescott, Arizona.

Dr. Wm. A. Dickey of Toledo, O., recently spent a few days in Southern California. Dr. Dickey graduated from the Louisville Medical College, Class of 1877, and is one of the prominent practitioners of Toledo.

Dr. Leonard and Dr. Stookey, 631 Auditorium Bldg., have begun their regular quiz course preparatory for the examination of the California State Board which begins in Los Angeles the first Tuesday in December.

Dr. Geo. H. Evans of San Francisco has been fishing at Catalina Island. He came through Los Angeles on his return, looking bronzed and happy, and also feeling grateful to Dr. Fitch Mattison for teaching him how to fish.

Dr. C. C. Stephenson, formerly of Little Rock, and Dr. Herbert F. True of Los Angeles, have formed a partnership and located in the Consolidated Realty Bldg., Sixth and Hill, where they will devote themselves to Eye, Ear, Nose and Throat.

Dr. Arnold Burkelman, H. W. Hellman Bldg., Los Angeles, has returned from three months in New York City. He devoted his time principally to work in the Manhattan Hospital for the treatment of Eye, Ear, Nose and Throat.

Dr. S. Adolphus Knopf took his vacation at Kennebunk, Maine. It was during his stay there that the Pine Tree State gave a majority for the Democratic party and inferentially wiped out prohibition. Possibly a mere coincidence.

Dr. F. E. Shine, Chief Surgeon of the Copper Queen Hospital at Bisbee, was recently called to St. Augustine, Florida, by the serious illness of his father. Dr. Shine is spending the month of October visiting his family in Santa Barbara, California.

Dr. Frank W. Miller and Dr. Albert Soiland of Los Angeles have returned from Europe. Dr. Miller put in much of his time on the Eye and Ear in Vienna, devoting shorter periods to the same subjects in Berlin and London. Dr. Soiland got the very latest on his specialty in Copenhagen.

Dr. Norman Bridge has removed his residence from Pasadena to Los Angeles. Dr. Bridge is prominent as a citizen, as a financier, as an author and as a physician. There is a movement to try to get the Doctor into politics, and many say he is just the man for United States Senator, "which nobody will deny."

Dr. Guilford H. Sumner of Des Moines is Secretary of the Iowa State Board of Health. He is energetic, sci-

entific and up-to-date in all respects. We commend the literature issued by Dr. Sumner to the Secretary of the California State Board of Health. By the way, who is Secretary of the California State Board of Health?

The Los Angeles Federation of Parents-Teachers Associations are taking steps towards establishing a hospital for children in Los Angeles. The idea is, as we understand it, to have this as a place to take children from the public schools who are needing immediate operations. Dr. H. F. True is co-operating in this movement.

The City Trustees of Oceanside have adopted an ordinance establishing a Board of Health, which provides that the Board shall consist of five persons, of whom at least one must be a practicing physician. The salary of each member is fixed at twelve dollars (\$12.00) a year. The health officer of the city is to be elected by the Board and receive a salary of fifty dollars (\$50.00) per year, together with necessary expenses.

At the annual meeting of the New Mexico Medical Society, held in Albuquerque, September 29 to October 1, the following officers were elected for the ensuing year: President, Francis T. B. Fest of Las Vegas; First Vice-President, R. L. Bradley of Roswell; Second Vice-President, LeRoy S. Peters of Silver City; Secretary R. E. McBride of Las Cruces; Treasurer, J. A. Massie, Santa Fe; Editor of the New Mexico Journal, Geo. S. McLandress of Albuquerque; Council, W. R. Tipton of East Las Vegas, W. T. Joyner of Roswell and James H. Wroth of Albuquerque.

Dr. Antoinette M. Bennette, superintendent of the San Bernardino County Hospital has returned from a five weeks' vacation at Lake Tahoe.

Dr. E. G. Turnbull, recently of the

City of Mexico, gave a banquet on September 12th to Dr. Chas. W. Bryson, Dean of the College of Physicians and Surgeons of the University of Southern California. Dr. Turnbull was formerly connected with the Clinical Laboratories of the Mexican Government, but now holds the chair of Pathology in Dr. Bryson's school.

Dr. F. W. Kidder has been appointed Assistant Police Surgeon of Los Angeles to succeed Dr. Edward Wiley.

We have received the report of the "Housing Commission of the City of Los Angeles" for the year ending June 30, 1910.

Dr. Titian Coffey is at the head of this Commission and has held that position for several years. The report shows much work done and by numerous illustrations awakens us to the fact that there is much work yet that should be done.

The ideal concrete construction which is the partly realized dream of Thomas A. Edison is commended in this report.

It is a fine thing to see a busy physician take up some line of work outside of his profession and we commend Dr. Coffey's work and example to other members of the profession.

Dr. Wm. T. Cale, assistant surgeon at the Soldiers Home at Santa Monica, has left for Washington by a telegraphic order from the Surgeon General of the United States Army requiring him to report at Washington on October 1st. Dr. Cale passed the examinations at Monterey a few months ago. At Washington he will be entered in the United States Army Medical College for a probationary course, military as well as a medical training, after which he will receive a commission as surgeon in the army. Dr. Henry G. Ford, formerly assistant surgeon at the Soldiers Home, is also in Washington taking this course,



Dr. E. C. Day has been appointed assistant surgeon at the Soldiers Home and Dr. A. W. Hillar has been appointed interne at the same institution. Dr. C. G. Toland of Pomona, who is spending a year with the Mayos at Rochester, Minn., has presented the Pomona Valley Hospital with a new operating table.

The body of a young woman was found buried under the cement floor of a house rented by a so-called physician in San Francisco. At the inquest the proof was so convincing that the young woman died from a criminal operation by the doctor that he was held for murder. At the time of her murder and criminal burial the following advertisement was running in the San Francisco *Examiner*:

DR. J. E. AND DR. MARY GRANT  
FEMALE SPECIALISTS FOR 15 YEARS  
ANTISEPTIC, SAFE AND PAINLESS  
METHODS WITHOUT DELAY from home or  
work.

TRAVELERS can be treated and return home the same day. We have never had a failure. Confinements and adoption arranged.

HONEST, RELIABLE, SCIENTIFIC  
TREATMENT GUARANTEED

Consult us freely and confidentially; it will save you time and money.

Phones Market 271; Home S-4390  
1293 Golden Gate Ave., cor. Fillmore

There are many newspapers that could eliminate harmful advertisements from their columns by having all medical advertisements carefully censored by persons not connected with their business departments.

Many remember and all know of Dr. Wilfred T. Grenfell, the Labrador Good Samaritan, who was in Los Angeles, the guest of Dr. W. Jarvis Barlow, about two years ago. *The Continent* in a recent issue, under the title of "The Prince of Labrador," says:

"No child of royalty, one ventures to declare, was ever born to so rich and perfect a rulership in the hearts of a people as that to which small Wilfred T. Grenfell, Jr., opened his eyes on September 24, at St. Anthony, New Foundland. The devotion which the fisher people of the Labrador coast

render the lad's father—their servant, healer, neighbor and friend—will become at once for the little son a loving cherishment verging very near to idolatry. And along with the loyal 'live-yeres,' thousands throughout Christendom who blessed in affectionate good will the Grenfell-MacClanahan nuptials at Chicago a year ago, will now in their prayers present themselves as volunteer godfathers and godmothers for the babe of the Grenfell household, asking that he may grow up a son worthy and able to continue his father's work, and answering, when providence and time demand it, the question that sometimes springs involuntarily to the mind: Who could take Dr. Grenfell's place in the work he does so masterfully?"

The Redlands Board of Health, at their meeting October 1st, adopted the following resolutions, that explain themselves:

"Whereas, Dr. J. M. Wheat has filled the position of Health Officer of the City of Redlands for the past nineteen years with credit to himself and satisfaction to the community.

"Resolved, that this board expresses its appreciation of the long and faithful services of Dr. Wheat, and commend him for his untiring zeal and conscientious effort in behalf of the Public Health.

"It is the unanimous wish of the board that he remain a member of this body and act in the capacity of Consulting Sanitarian.

"Be is further resolved that a copy of this resolution be spread upon the minutes of the Board of Health.

"(Signed)

"Dr. Gayle G. Moseley,

"J. E. Tischer,

"Committee on Resolutions.

"In submitting the above to you, please accept my personal congratulations and thanks for the many val-

uable aids and suggestions given me during the advent of my assumption of the duties acquitted by you. And with the hope that I may further profit by your counsel, I remain,

"Cordially yours,

"Hamilton Forline,

"Secretary."

On January 1, 1911 the Kansas City Medical Index-Lancet will be merged with the Medical Herald, under the editorial direction of Dr. Chas. Wood Fassett, St. Joseph, and Dr. S. Grover Burnett, Kansas City; Dr. Chas. Wood Fassett, Managing Editor, Gloyd Bldg., Kansas City, Mo. (after January 1), Sixth and Charles, St. Joseph, Mo.

We would like further information about one Jordan who claims to be a terror to quacks. Rumors are prevalent that this Jordan goes to a man or woman that he thinks he can

frighten, spreads the crime and penalties before the man, creates a cold sweat and an attack of paralysis agitations, and then comes around the next day and borrows some money. An easy graft. We would like facts in regard to this man. A quack is bad enough, but a blackmailer is worse. All we know personally of Jordan is that he called at our office and we were, by the rule of contraries, forcibly reminded of an anecdote in October's Scribners: Madame Waddington was to entertain King Edward at dinner at her home in Paris. As the king came in, his hostess' two grandsons, age four and six, were standing where they could get a glimpse of him. The king saw them and in his ever human, genial way went over and shook hands with them. The four-year-old, with great pride, said, "I take a cold bath every morning."

## PETITION TO THE LOS ANGELES BOARD OF SUPERVISORS FROM THE PRESENT ATTENDING STAFF OF THE LOS ANGELES COUNTY HOSPITAL REGARDING OSTEOPATHIC STAFFS.

The following petition was recently presented to the Los Angeles Board of Supervisors, which is the governing board of the Los Angeles County Hospital, in response to the demand by the osteopathic colleges of Los Angeles that they be given representation on the attending staff:

Los Angeles, Cal., Aug. 1, 1910.

To the Honorable Board of

Supervisors of Los Angeles County,  
Los Angeles, California.

Gentlemen:

The present attending staff of the Los Angeles County Hospital, composed of the physicians and surgeons and specialists from the medical faculties of the State University of California and from the University of Southern California, respectfully re-

quests your consideration of the attitude of its members toward the application of the osteopathic colleges of Los Angeles, in which the said osteopathic colleges request permission to also have attending staffs at the Los Angeles County Hospital.

The present attending staff holds that the application of the osteopathic schools should be denied for the following reasons:

**One:** That the physical welfare and comfort of the poor citizens who are ill and injured and for whom the County Hospital primarily exists would not only be **not** bettered but would actually be made worse if such osteopathic staffs were to be appointed.

**Two: That the efficiency and discipline of the County Hospital** would be seriously impaired, if such osteopathic staffs were appointed at this time.

\* \* \*

The present attending staff, composed of members from the faculties of the State University and from the University of Southern California begs leave to also call your attention to the following facts:

1. **That inasmuch as the osteopathic colleges at the present time have lower standards,** namely, a common school standard of preliminary education instead of the minimum high school standard demanded by the medical college of California, that therefore the antagonism existing between the medical profession and the osteopathic profession on this point is so great, that it would be impossible for the present staff to harmoniously treat the same patients as would be receiving treatment by such osteopathic staffs, if appointed.

**The medical profession feels keenly on this point, and since** this issue has been forced on the present attending staff, it has no hesitancy in stating that the osteopathic colleges of Los Angeles, according to the standards of medical teaching of today (year 1910) are degrading the noble profession of the healing art, by graduating and putting out upon the public many students who lack that minimum preliminary education, which all who have any real or true knowledge of educational standards, are agreed that all practitioners of the healing art (no matter to what school belonging) should possess.

**It seems to the present attending staff that it would be time enough to recognize** the osteopathic colleges when they have subscribed to that fun-

damental standard of preliminary education, which from one end of the country to the other is demanded by all legitimate institutions teaching the healing art, namely: A high school or equivalent education as demanded by the Association of American Medical Colleges, the said preliminary education to be determined, not by the interested and prejudiced institutions themselves, but by the California State Board of Medical Examiners, through its deputy examiners.

It is to be noted also, that in spite of the fact that the osteopathic colleges of Los Angeles are splendid money making concerns owing to their low standards, (as will be considered later) they do not spend their money to better their courses. Thus, the Carnegie report, (to be spoken of later) states:

"The eight osteopathic colleges of the United States now enroll over 1,300 students, who pay some \$200,000 annually in fees. The instruction furnished for this sum is inexpensive and worthless—The fees find their way directly into the pockets of the school owners, or into school buildings and infirmaries that are equally their property. No effort is made anywhere to utilize their prosperity as a means of defining an entrance standard or developing the 'science.' If sincere, the votaries of osteopathy would be engaged in critically building it up. They are doing nothing of the kind.

\* \* \*

2. **Granted now for the sake of argument that the osteopathic colleges** were granted permission to have separate attending staffs, **it would become necessary to have one of two systems of control of patients; namely:**

(a) **Either to have osteopaths come in and attend** at the same time patients, who were being



treated by the present staff; or  
(b) **To have separate wards and buildings** entirely given over to the osteopathic staffs.

Let us consider each of these plans in turn.

PLAN "A"

Consider what would happen, if the first system were attempted, in which a medical and an osteopathic practitioner were attending one and the same patient at the same time. What would be the result? The osteopath in all probability would have full sway, because the regular practitioner would refuse to consult with a person holding opinions of treatment so markedly at variance with his own conception of scientific medicine that no harmony of measures of treatments could result from such consultations, and whose general standards of preliminary education were such as to instill prejudice and contempt, in other words, if a system were adopted in which it was aimed to have the present staff meet the osteopathic staff in consultation and professional relationship, there would be nothing for the present staff to do but to retire from the hospital.

If this were done, it would **virtually be giving the hospital into the control of a minority** of the profession of the healing art of the community, a minority which is new in origin, young in the years and experience of its members, and a minority which, as will be shown later on, is seemingly pledged to standards that are low from the educational standpoint, and commercial, and the scope of whose methods of manipulative treatment extends to only a limited number of diseases.

If such an osteopathic staff were

appointed, **many other dire results would occur:**

(a) Thus the great mass of the educated profession in this city would be **antagonistic** to the hospital and its methods, and the **great mass of the citizens** would share these prejudices. The poor who were sick would object to going to the institution and of those who did the majority would probably be dissatisfied.

(b) The **interness** would probably **resign**, because no ambitious student of scientific medicine would work under an osteopathic staff, since so many of the opinions of osteopathy are to them illogical and not supported by sufficient evidence.

It would be **difficult to maintain a high grade training school for nurses** because the women would soon learn that a hospital training school having an osteopathic attending staff would have a second-class reputation, and that its diplomas would have a stigma in the eyes of other graduate nurses. No intelligent woman would wish to work for two or three years, when the same effort elsewhere would give her a much more valuable diploma.

(c) Owing to the low standards of preliminary education, the osteopathic colleges of this city have very large students bodies. That would mean that instead of about only twenty students, as at present, being admitted to the hospital to walk on certain days, with the attending staff in their rounds, probably fifty to one hundred or more, (perhaps even two hundred) osteopathic students would wish to make rounds. What kind of a **demoralization of hospital methods** would result from the influx of such a large number of crudely educated students, only those familiar and experienced in hospital methods could appreciate. And if these students were permitted to practice osteopathic manipulations

on the patients, who could foresee the results?

PLAN "B"

**(B) Consider now what would happen if a separate building or wards should be given to anosteopathic staff.**

This plan would necessitate osteopathic internes, toward whom the regular internes would be naturally antagonistic, and **strife among the resident staff** would be the result. **The regular internes would probably refuse to work under the osteopathic staff, and would not wish to mingle socially with the osteopathic staff or with the osteopathic internes.**

**Who would determine what patients should be assigned to the osteopathic wards? The regular staff would wish to be excused from this duty, because the regular staff regards the osteopathic school as unscientific and commercial.**

**If the patients were to have the right to choose their attending staff, there would be constant turmoil and unrest among the inmates throughout the entire institution which could not be otherwise than harmful to their bodily welfare and comfort. A short trial of such a system would soon render it intolerable and the Supervisors in self defense would do away with all attending staffs and have the work at the hospital done by paid physicians.**

And then if by chance osteopathy should demand a paid physician as its representative **the whole set of troubles just enumerated would again be set into motion.**

At this point, attention may be justly called also, to the **value in dollars and cents of the professional services rendered by the present attending staff** of the Los Angeles County Hospital. With an average of four hundred patients in the institution and virtually a number of major operations performed daily, the scheduled value of the services rendered by this at-

tending staff, consisting of some fifty physicians, surgeons and specialists, if these services were rendered at the private offices of the members of the attending staff, would undoubtedly exceed one thousand dollars a day or more than \$300,000 a year.

We would also call the attention of your Board to the fact that **if you to-day recognized low standards of education in the healing art, by giving staffs to the osteopaths, that it would only be a year or two before the naturopaths would come before you with similar claims, and after them, would probably come the chiropractics, and after them probably several other groups of sectarians in medicine, who by that time may have foisted on an indulgent and unthinking public, a mass of unscientific procedures by crudely educated but mercenary minded persons, parading under the banner of another "new school in medicine."** History is full of this sort of thing, and since human nature and human credulity change, but little, there is every probability of a repetition of such applications as are now before you.

In this connection, too, it is to be remembered that the **present attending staff belongs to no so-called "school of medicine."** Its members have no preconceived notions of disease or treatment, to which the course or cure of disease must be made to conform. The attending staff belongs to that great group of scientific practitioners who accept the facts of disease as they find them and who can use anything under the sun which appeals to their reason or experience. **They can practice osteopathy to the same extent as osteopaths, if osteopathy seems rational or otherwise worthy of such faith and no one will or can say them nay.** As a matter of fact, of course, all sectarian medicine works on an unscientific foundation, because an attempt is made to ap-

proach scientific facts with preconceived ideas. That is the reason such sectarian schools of the healing art ?? the stage, make much noise for a time, and then quietly and gradually lose strength and influence.

3. **Granted again for the sake of argument**, that the osteopathic colleges were represented by attending staffs, and that wards were given them, **what diseases would they treat?** When the osteopaths some years ago were given a separate board of examiners, it was given on their plea that they treated only a limited number of diseases and did no general medicine or surgery. In a few years, however, they have professed to become surgeons. Today they are attempting to do surgery, if reports be true, and osteopathic graduates of only common school education and only two terms of professional training are given rights denied to high school graduates with four years of medical training.

In this connection it is to be remembered that though a state statute may be secured which gives special privileges to a minority, that such statute does not **imply that the State of California thereby endorses the system or methods used by the said minority.**

In a matter of state endorsement of methods of training in the healing art we should not look to a state statute secured by specious pleas for a minority, but should **take as our measure** the standards set by the head of the educational system of California, **thereby endorsing the system or methods used by the said minority.**

In a matter of state endorsement of methods of training in the healing art we should not look to a state statute secured by specious pleas for a minority, but should **take as our measure** the standards set by the head of the educational system of California, namely: The State University of California, or by such an in-

stitution as the University of Southern California, the medical standards of which are as different from the standards of the osteopathic colleges of this city as day is from night.

It is no legitimate defense of the low educational standards of the osteopathic colleges of Los Angeles to cite the fact that certain of their graduates have passed the license examinations of the California State Board of Medical Examiners, for the Carnegie Report has shown that in Chicago, for instance, a school of standards so low as to necessitate a revocation of license, sent to the state board of Illinois a higher number of successful candidates than institutions giving such broad and scientific training like the Universities of Chicago and Illinois and Northwestern University.

**In other words, it is a comparatively easy task to cram into a man with only a common school training superficial book knowledge that will enable him to successfully answer 75% of 100 questions put to him by a state examining board in its hurried tests; but that is an entirely different process from taking a young man of high school or collegiate education and giving him that scientific and professional training which will fit him in the highest and best sense to not only go out and relieve suffering and cure disease, but to go out also and do his part by his fellow citizens, by being a useful and intelligent factor in the broad work in the prevention of disease of all kinds.**

Right here it may be stated also that **90% or more of all the knowledge the world now has concerning the prevention of infectious and other dangerous diseases** has been discovered by members of the so-called regular school of medicine, and that this knowledge has not only been given freely and without cost to the world, but these same medical men have



given their time and energy to instill a conception of these truths into the minds of the people, so that health and life might be conserved. Witness, for example, the work in connection with the prevention of tuberculosis, of malaria and of yellow fever.

Concerning the claims of osteopathy itself as a system of the healing art, sufficient unto itself with its own peculiar methods, it may not be amiss to repeat the words of a recent committee appointed to report to the legislature of New York on the application of osteopaths to be recognized. This committee reported back, using the following words:

**"All that is new in osteopathy is not true,**

**And all that is true is not new."**

However, the present attending staff does not wish to discuss the sectarian school of the healing art known as osteopathy, since time will give it its true status.

4. **We commend, also, to your careful consideration the report of the Carnegie Foundation for the Advancement of Learning, on the osteopathic colleges of the United States.**

This foundation has an endowment of \$15,000,000, given by Mr. Andrew Carnegie, and **its sole object is to place collegiate and professional teaching in the United States on the highest possible plane.**

This report, only recently published, states that there are no osteopathic colleges in Canada, and only eight in the United States, two of these being in Los Angeles. In passing it may be stated that **no nation recognized osteopathy and that graduates of that school are not eligible to the medical service of the United States Army, Navy or marine hospital service.** The large insurance companies also refuse to recognize osteopathy. If the national government refuses to recognize osteopathy, why

should a county government not do likewise?

The Carnegie Report states that "the eight osteopathic schools of the United States **fairly reek with commercialism.**" The report further states that **"the mercenary character of osteopathic institutions is nowhere more conspicuously displayed than in the dispensaries, designed in theory to turn a humanitarian impulse to educational account. The osteopathic schools insert a cash nexus: The patients almost always pay—at Los Angeles the cheapest obtainable treatment is three dollars for examination and one month's treatment before the class."**

**Contrast this last item, for instance, with the Selwyn Emmett Graves Memorial Dispensary of the State University, on Buena Vista Street, just north of the Broadway tunnel, where 7000 new patients are treated free every year, and where with returning patients the number of persons treated each year exceeds more than 20,000, every one of these poor afflicted citizens receiving advice and medicine without cost of a single penny, and where skilled medical and surgical service has been given to the poor sick and injured of Los Angeles for years without one penny of cost or a single bit of blowing of horns.**

5. **There has been much newspaper space given to a recital during the last several weeks to a few patients at the County Hospital who were said to want osteopathic treatment. Since the osteopathic colleges make thousands of dollars of profit annually, which go into the pockets of the owners (whereas the faculties of the State University and the University of Southern California give their services free, and in addition assess themselves in money to maintain proper educational standards); and since the osteopathic colleges charge money at their dispensaries, whereas the two**

universities mentioned do not, would it not be reasonable to have expected the osteopaths to have taken these half dozen patients from the County Hospital and given them free treatment in their own institutions without all this hue and cry about their humanitarian instincts and endeavors? And it stands to reason that in an institution of more than four hundred sick people, it would always be easy to find a dozen or more who were dissatisfied and who wanted something different from that which they were getting.

A little charity work from these osteopathic institutions waxing rich in money and placing thousands of dollars directly or indirectly into the pockets of the owners, would surely not be out of place.

But no, it was not charity that these two institutions sought. It was a still greater aggrandizement of their power. If they could get into the County Hospital, then with their low common school standard of preliminary education, they could attract a still larger number of students and make even more money, to go into the pockets of the private owners of the schools.

It does not seem to make any difference to them if the hospital efficiency and discipline is thereby lowered and the bodily welfare and comfort of the patients greatly imperiled, so long as they have the chance to make more money.

Gentlemen of the Board of Supervisors, we again submit that your experience with the present attending staff has shown that its members are loyal and conscientious in their devotion to the interests of the County Hospital patients; and that to place osteopathic practitioners in the Hospital in any way would result in lessened discipline and great harm to the hospital and its inmates.

Further, that until the osteopathic

colleges of Los Angeles raise their standard of preliminary education to the high school standard, alike demanded by the regular, the homeopathic and the eclectic medical colleges of the United States, that they have until such time no public health basis on which to make a legitimate request for separate attending staffs at the Los Angeles County Hospital.

It is not, gentlemen, a question of the right of a group of tax-payers, nor is it a question of special privileges to other groups of tax-payers.

It is a question of what is best for the sick and injured inmates of the County Hospital.

We respectfully submit that it is your duty and we hope you will hold it to be your duty in this matter to follow that system which will best work for an efficient, well disciplined County Hospital, in which the largest possible number of the sick and injured inmates are given the most skilled medical and surgical attention possible to obtain.

The present system is accomplishing these ends. The attending staff is made up from the faculties of two universities, not run for profit and whose members not only give their services and more absolutely gratis to thousands of the poor sick of our city, but in addition give hundreds of dollars to maintain two educational institutions possessing standards in accord with modern knowledge and of such character as to be a real credit to this city of Los Angeles.

On the other hand we have two Los Angeles osteopathic colleges not only run for profit but placing thousands of dollars yearly in the pockets of their private owners. These two institutions have educational standards discarded by medical institutions a quarter of a century ago. In spite of the fact that these two institutions are profitable money making concerns, they have done comparatively little or

no charitable work up to this time for the poor of the city of Los Angeles.

In our previous statements we have shown that discord, lax discipline and harm to the bodily welfare would result to the inmates of the County Hospital were osteopathic staffs introduced at this time.

Let these two osteopathic colleges first raise themselves to that minimum educational standard and so give evidence to the world of their honest desire to help place the healing art on a higher plane, as well as to do their share among the poor sick and injured, before they come to you, demanding that they, too, have a right to be represented at the County Hospital.

They, nor any others have a right to treat the sick and injured at the County Hospital unless they have those standards conducive to the best interests of the institution and its inmates, and to the public health interests of the State of California.

The present attending staff respectfully petitions that you refuse to grant their application at this time, with the advice that they get their house and standards in such order as will give them a honest basis for making so sacred a request.

Respectfully submitted,

The Attending Staff of the  
Los Angeles County Hospital,

W. Jarvis Barlow, M. D.,  
W. W. Beckett, M.D.,  
George H. Kress, M.D.,  
Charles W. Bryson, M.D.,  
O. O. Witherbee, M.D.,  
J. H. Seymour, M. D.,

Committee Appointed for the Staff.

**PRESENT (1910) ATTENDING  
STAFF OF THE LOS ANGELES  
COUNTY HOSPITAL**

#### **Medical Wards**

W. Jarvis Barlow, A.B., M.D.  
Donald J. Frick, M.D.  
Dudley Fulton, M.D.  
Bernard Smith, M.D.

Henry H. Lissner, M.D.  
P. G. White, M.D.  
C. L. Bennett, M.D.  
Thompson B. Wright, M.D.  
Sylvester Gwaltney, M.D.  
Louis Weber, M.D.  
Edward W. Hanlon, M.D.

#### **Nervous Diseases Wards**

H. G. Brainerd, A.B., M.D.  
Ross Moore, M.D.  
Chas. L. Allen, M.D.  
James T. Fisher, M.D.

#### **Tuberculosis Wards**

George H. Kress, M.D.  
Henry Herbert, M.D.

#### **Obstetric Ward**

Titian J. Coffey, M.D.  
Walter S. Johnson, M.D.

#### **Surgical Wards**

W. W. Beckett, M.D.  
W. W. Richardson, M.D.  
W. A. Edwards, M.D.  
Eliot Alden, M.D.  
J. J. A. Van Kaathoven, M.D.  
Clarence E. Moore, M.D.  
F. L. Anton, M.D.  
Orville O. Witherbee, M.D.  
James H. Seymour, M.D.  
Charles W. Bryson, M.D.  
John J. Still, M.D.

#### **Gynecology Wards**

Carl Kurtz, M.D.  
W. W. Beckett, M.D.  
John C. Hollister, M.D.  
Charles W. Bryson, M.D.

#### **Eye Ward**

H. Bert. Ellis, A.B., M.D.  
Frank Bullard, A.M., M.D.  
Thomas J. McCoy, M.D.

#### **Ear, Nose, Throat Ward**

Hill Hastings, M.D.  
A. L. Kelsey, M.D.  
William L. Zuill, M.D.

#### **Skin and Genito-Urinary Ward**

Granville MacGowan, M.D.  
Anstruther Davidson, M.D.  
Warren N. Horton, M.D.

#### **Pathology Ward**

Stanley P. Black, A.M., M.D.  
Carl C. Warden, M.D.  
Dallas C. Ragland, M.D.



## BOOK REVIEWS

**INTERNATIONAL CLINICS**, a quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Gynaecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners by leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, U.S.A., with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; A. McPhedran, M.D., Toronto; Frank Billings, M.D., Chicago; Chas. H. Mayo, M.D., Rochester; Thos. H. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J.W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Richard Kretz, M.D., Vienna; with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Liepsic, Brussels and Carlsbad. Volume 11, Twentieth Series, 1910. Philadelphia and London, J. B. Lippincott Company.

This volume contains valuable articles by Tyson, Cumston, Walsh, Deaver, Fischer and other leading men.

In writing of **Amoebic Dysentery**, Dr. Ch. Dopfer says: "Repeated purgation and an antiseptic lavages are the two main methods of treatment at our disposal." He says: "It is important to remember that a given amount of salts, administered in a single dose, produce a far less satisfactory result than when it is divided up into several small doses." Calomel generally gives good results, and it has the advantage, as well, of possessing a marked action on the liver and kidneys; it seems often more efficacious than the saline purgatives, especially in serious cases. Adults easily stand doses of 12 to 15 grains; but the use of the drug cannot be continued any length of time on account of the mercurial intoxication to which it gives rise. **Ipecac** may be looked upon as a heroic remedy. The Brazilian method: Glass of boiling water is poured over 30 to 120 grains of crushed ipecac root. This is allowed to infuse for several hours, and then decanted and given to the patient. The same process may be repeated the

second or even the third time, with the ipecac that has already been used."

**Diet in Amoebic Dysentery**: "Place the intestine in a state of rest and keep it there as long as possible. An absolute milk diet is sufficient, easy to digest, leaves little residuum, and requires the least possible effort on the part of the digestive tract. Should be taken hot, in small quantities, very frequently repeated."

In the course of an interesting article on **Chronic Pancreatitis**, Cumston says: "There are two groups of symptoms: (1) pain icterus and a tendency to hemorrhages; (2) the presence of emaciation, a tumor, and the clinical evidence that may be found by an analysis of the urine and feces."

The whole volume is interesting and instructive. The subscriber for this series has no excuse for not keeping pace with scientific progress.

### NEW WORK—READY SHORTLY

**MODERN TREATMENT**, The Management of Disease with Medicinal and Non-Medicinal Remedies. By eminent American and English authorities. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica, Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital; one time Clinical Professor of Diseases of Children in the Medical Department of the University of Pennsylvania; author of a text-book of Practical Therapeutics, a text-book of the Practice of Medicine, etc. Assisted by H. R. M. Landis, M.D., Medical Director of the Phipps Institute for Tuberculosis and Physician to the White Haven Sanatorium. In two very handsome octavo volumes, comprising 1600 pages, about 400 engravings and 20 full-page plates. Price per volume in cloth, \$6.00 net; half morocco, \$7.50 net. For sale by subscription only, Lea & Febiger, Publishers, Philadelphia and New York.

This will be a comprehensive work, giving, as its title indicates, the last word in therapeutics. Among the authors of various sections we notice the names of Horatio C. Wood, W. Jarvis Barlow, F. X. Dercum, Simon Baruch, Julius Friedenwald, F. M. Pottenger, Wm. S. Gottheil, J. C. Da

Costa, Herbert C. Moffit, Howard Fox and James Tyson.

Southern California is represented by Dr. Barlow and Dr. Pottenger, while the University of California has in the corps of authors two members of its faculty—Drs. Barlow and Moffit.

Dr. F. M. Pottenger writes on Tuberculin. Dr. W. Jarvis Barlow has a section in the first volume on Climate: High Altitudes and Low Altitudes. Dr. Herbert C. Moffit covers the subjects of Diseases of the Liver, Gall Bladder and Pancreas from the medical standpoint.

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THE ESSENTIALS OF HISTOLOGY, DESCRIPTIVE AND PRACTICAL. For the use of students. By Edward A. Schäfer, F.R.S., Professor of Physiology in the University of Edinburgh. New (8th) edition thoroughly revised. Octavo, 571 pages, with 645 illustrations. Cloth, \$3.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

Professor Schäfer has again thoroughly revised his well-known work. It covers the subject of human histology in a series of fifty short chapters or lessons, systematically arranged and so planned that each suffices for a convenient assignment of classwork. Practical directions are given throughout, so that the work serves alike for didactic and laboratory courses.

The illustrations, in black and colors, are profuse and of excellent quality, due in large part to the original fine hand drawings in which non-essentials have been omitted and those points which are of importance have

thereby been specially emphasized. The book has been printed on fine thin paper for portability.

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PATHOGENIC MICRO-ORGANISMS, INCLUDING BACTERIA AND PROTOZOA. A practical manual for students, physicians and health officers. By William H. Park, M.D., Professor of Bacteriology and Hygiene in the University and Bellevue Hospital Medical College, and Director of the Research Laboratory, Department of Health, New York City; and Anna W. Williams, M.D., Assistant Director of the Research Laboratory. New (fourth) edition, thoroughly revised. Octavo, 670 pages, with 196 illustrations and 8 full-page plates. Cloth, \$3.75, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

In its previous edition the author broadened it to include the protozoa as well as the bacteria, the animal as well as the vegetable germs, two parts of the great subject of pathogenic micro-organisms, so that this single volume presents the entire field in the most convenient and authoritative manner. In this new edition the scope of the book has been broadened again by including micro-organisms important in agriculture. It has been thoroughly revised to represent the latest developments in one of the most important and active branches of medicine. The changes have been so sweeping that the entire volume has been reset in new type. The illustrations in black and colors contain many new figures.

We cannot conceive of two books that would more thoroughly fill the needs of the student or of the practitioner who graduated a few years ago and whose education along these lines was somewhat deficient.

---

## THERAPEUTICAL HINTS

**Safe Anesthesia** by using Kelene (pure Chloride of Ethyl).—Extract from a prominent medical journal:

"As the law now stands, the question resolves itself into the question of negligence in case of death from

the anesthetic. Was the surgeon careful in his selection of the **proper drug?** **Was the anesthetic a proper one for the case?** **Was it pure,**"

The use of Kelene (pure Chloride of Ethyl) Fries Bros., as an adjuvant

preliminary to the use of any **general anesthetic**, will greatly lessen the chances of dangerous effects, **reducing** the amount of **drug** required. Bad **after-effects** are also almost entirely eliminated by using Kelene.

In the treatment of diphtheria the physician of today uses antitoxin as a matter of course. It is his first expedient and his last resort. He believes implicitly in its efficacy. But does he understand and appreciate all that is involved in the production of that antitoxin—the scientific knowledge, the skill, the caution, the minutiae of detail? This thought is forced upon the writer through the perusal of a recent publication of Parke, Davis & Co., which deals in part with the subject of antitoxin manufacture. Here is a specimen chapter:

"In the selection of the horses which are to act as the living laboratories for the production of the antitoxin, we apply not commercial or academic knowledge merely, but, what is more to the point, veterinary skill. The animals must be vigorous and healthy. They are carefully examined, their temperature noted for several days, and the presence of glanders excluded by the delicate mallein test. It is the blood-serum of these animals that is to be injected into the patient later on, and no precaution can be regarded as extreme which contributes the slightest positive assurance of its purity.

"Not only must the horses be in good general condition when inoculated, they must be kept so. They are fed, stalled, groomed and exercised for no other purpose than to maintain to the full their self-protective, antitoxin producing powers."

The foregoing has reference to but a single step in the process of serum production, and affords but a hint of the safeguards with which Antidiph-

## "The Passage of an Instrument

of any kind into the healthy urethra," says Sir Henry Thompson, "must *per se* be a source of irritation . . . Of course, the amount of irritation will depend in great part on the manner in which it is passed."



### K-Y Lubricating Jelly

reduces the *discomfort* by improving the *manner* of urethral instrumentation. Its *emollient* action also aids in subduing existing irritation in the prostatic invalid.

K-Y contains *No Formaldehyde*.

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theric Serum (P. D. & Co.) is hedged about at every stage of its manufacture—conditions which enable the company to guarantee the purity and potency of its antitoxin.

Alcoholic gastritis and the other highly irritable forms of catarrhal inflammation of the gastro-intestinal tract are indications for the use of Seng. Instead of adding to gastric irritability, Seng not infrequently acts as a marked sedative through its salutary action on the circulation and consequent relief of congestion.

While bromism cannot be absolutely prevented in persons having an idiosyncrasy toward the bromides, it has been found that under the use of Peacock's Bromides its occurrence can be generally avoided, or at the very least—greatly diminished in intensity.



Two parts of Dioiburnia to one part of Neurosine is par excellent in Hysteria, Eclampsia, Melancholia, Female Neurosis, Uterine Congestion, Ovarian Neuralgias, an efficient Diuretic, Asthma Sexualis, Uterine Irritability, Lumbago, Migraine, Menopause, Menstrual Colic, Anemic Nervousness, Nervous Prostration, Reflex Cough, Delayed Catamenia, Non-descriptive Cases, Subacute Rheumatism, relieves all False Pains, Rheumatic, Sciatic Pains, Neurasthenia from Uterine Diseases.

Capsicum Jelly manufactured by the Ray Chemical Company gives an efficient and convenient counter-irritant. It contains standard counter-irritants in a special, jelly-like base. Capsicum Jelly produces a prompt rebefacient action, without vesication, and can be used with perfect assurance that the desired result will be effected, and *no more*.

Forty-three years of uninterrupted business in the same section of Maiden Lane, New York, have linked the name of Schering & Glatz intimately with that of the thoroughfare.

Established in 1867 at the corner of Maiden Lane and William Street, the site of the present Royal Building, their place of business was first removed to No. 52 Maiden Lane, and in 1881 to No. 55. Eighteen years later (1898) the firm moved to No. 58, the building now occupied by them.

Owing to the constantly increasing demand for locations on upper Maiden Lane on the part of the wholesale jewelry and insurance interests, several pharmaceutical and chemical houses have in recent years moved from this erstwhile center of chemical industry.

Schering & Glatz will shortly follow their example, remaining, however, on Maiden Lane, a few blocks removed from their former locations. Their future home, the five-story building at 150-152 Maiden Lane, S. E. corner of

Front Street, acquired last year by the now sole proprietor of the firm, Mr. C. F. Stiefel, is at present being thoroughly remodeled and will be ready for occupancy on July 1st.

Blood Disorders. In all forms of blood dyscrasia, as indicated by skin disorders, bad healing power and general debility, Echthol often proves effective when other treatment fails. It quickly raises the antitoxic and so-called opsonic power of the blood, increases the resisting power of the tissues and thus minimizes the dangers of bacterial attack. Healing processes are stimulated, and the whole economy is materially improved in its vital details.

Cactina Pillets will strengthen the heart's action; it does support the heart; and its prolonged use will unquestionably encourage the physiological action of the human pump. And this assistance to the heart and circulation is absolutely without danger or annoyance to the patient. One can not find a more helpful and kindly drug, and he who prejudges it, or from bias denies it, without due examination, deprives himself of a valuable aid.

Thermotherapy in inflammatory conditions seems to prove most effective when applied in the form of moist heat.

The relaxation of pressure by infiltrated and swollen tissues upon nerve endings, as experienced by the relief of pain, specifically proves this.

The advantages of moist heat where indicated is generally acknowledged. The method of its application from professional preferment seems to be in the form of Antiphlogistine. By this method, a high temperature can be maintained in contact with the affected part for hours without exposure to the patient for redressing.

The superior advantages of Antiphlogistine over other forms of moist dressings, such as poultices, hot packs,

etc., are that it is easily applied, retains its heat for hours, is antiseptic in action, and above all, produces satisfactory therapeutic results.

**The Illy-Nurtured Baby.**—In the course of daily practice the physician is frequently called upon for advice as to the management and treatment of the child that fails to thrive. Many such babies, while not marantic, and while apparently happy and healthy in other respects, seem to remain "in statu quo," without evidencing the normal growth and gain in size and weight. Very naturally, the first thing to be investigated is the character of the child's food, the frequency of feeding, etc., and attention to the food factor is imperative, if improvement is to be expected. In addition to this, however, the little patient often requires some "fillip" to vitality, in the form of a mild general tonic and reconstructive. For this purpose nothing is more generally beneficial than Pepto-Mangan (Gude), in doses proportionate to age. Being palatable, even young children take it readily. As it is free from irritant properties, it is readily tolerable and absorbable, without disturbing the digestion or producing constipation.

#### SURGICAL USES OF FRESH PINEAPPLE JUICE.

(Containing the proteolytic enzyme bromelin.)

While in furuncles the ideal treatment is incision, sometimes this is forbidden by the patient, as he prefers to suffer rather than have the knife used. Thus I have seen a yellow cap remain upon a boil for hours without solution and hold back the pus. Though the man was suffering agonies, he hesitated to face the bistoury. The application of pineapple pulp shavings invariably establishes free drainage within a short time. The yellowish

## Svapnia

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With a Fixed  
Morphine Standard**

**SVAPNIA** possesses the following advantages over ordinary opium:

Freedom from mechanical impurities; elimination of undesirable alkaloids; definite morphine content (10 per cent); lessened tendency to nausea and vomiting; increased palatability; uniform results.

The adult dose of Svapnia (1 to 2 gr.), as well as the indications for its use, are the same as opium. It is in the form of red-brown scales, soluble in water with turbidity, and is best administered in capsules, pills or powder form.

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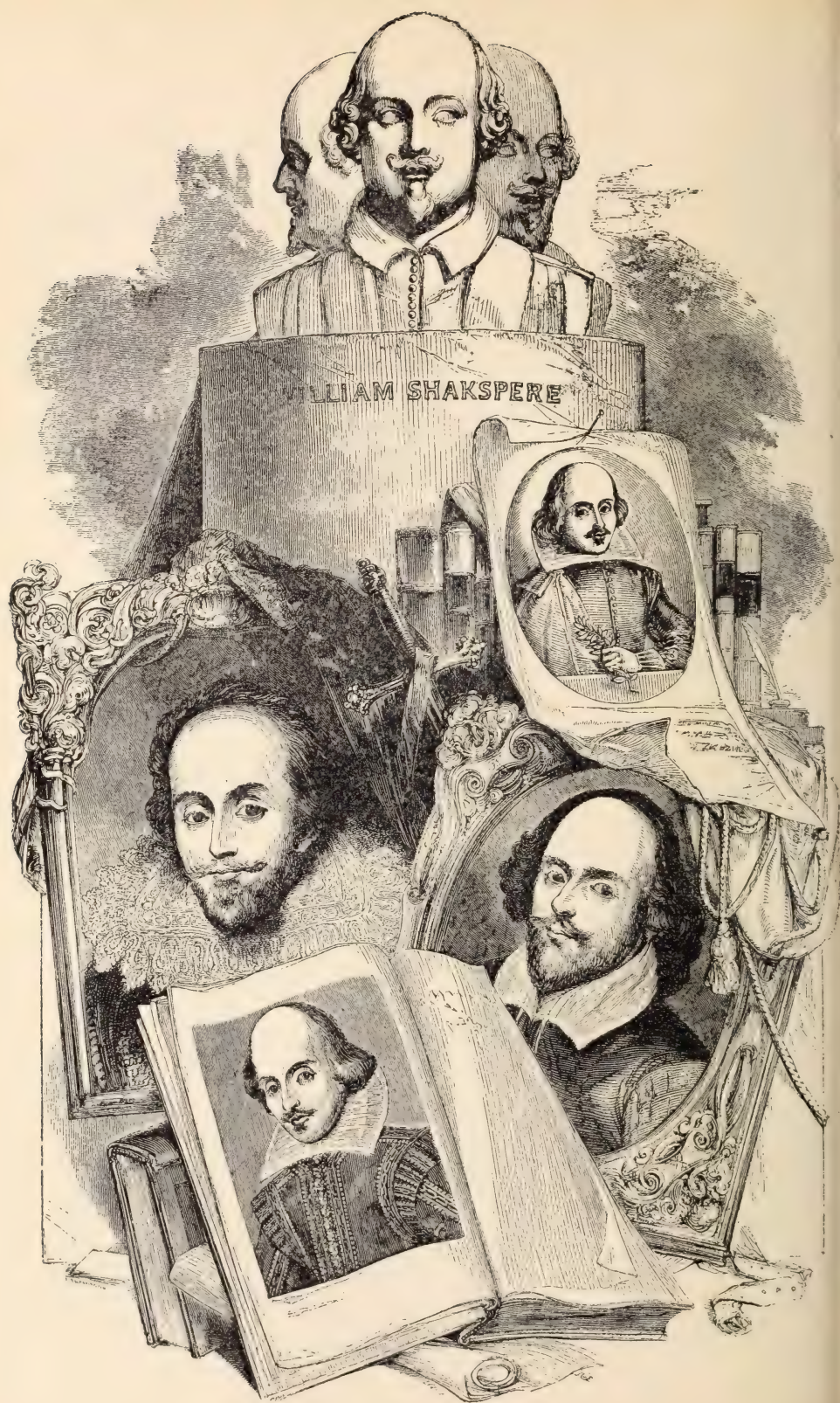
*Sample and literature on application.*

and desiccated necrotic head is often digested promptly. . . . In cleaning up wounds pineapple juice will dissolve clots and render them more easily removed by the peroxide of hydrogen.—B. G. R. Williams in *Medical Record*.

Miss Laura V. Cochran, after six years of service in the California Hospital, has resigned her position as assistant superintendent and is doing private nursing. Miss Mildred L. Bowen, '10, is temporarily assisting Miss Williamson, the superintendent.

Miss Anne A. Williamson, superintendent of nurses of the California Hospital, has been enjoying her vacation with her family at Sierra Madre. On her return to the hospital Miss Williamson received a hearty welcome, the dining room was decorated with beautiful California flowers and a special dinner was served.







## THE CALIFORNIA HOSPITAL IDEA

To keep the nurses abreast of the times on the world's progress, to divert their minds from medicine and hospital, and give them a broad outlook, to give them subjects for cheerful conversation with their patients, the management of the California Hospital two years ago inaugurated the reading of a daily paper to the nurses.

This daily paper is read during the luncheon period and usually occupies eight or ten minutes. It is made up of the general news of the world, condensed from the morning papers, together with literary notes. On April 23rd, Shakespeare's birthday, the literary notes referred especially to the great bard. Each one of the hundred nurses was presented with the portraits on the opposite page, together with the following description:

"The portrait at the top represents three views of the bust that is in the church at Stratford on Avon and was seen and approved by members of his family. It has on it 'obit 1616.' This is called the Dozdale portrait. The one at the bottom of the page is called the Martin Droeshout. This is authentic. The one at the right and below the Dozdale is another Droeshout. The portrait on the lower right side is the celebrated Chandois. The one of the left side was painted by Cornelius Jansen, who died 1638. This portrait has on it the inscription: 'Act. 46, 1610.' Shakespeare died 1616, age 52."

### PENOLOGY.

#### The Italian Conception a Superstition.

"I do not believe a murderer can be revealed by his frontal curve, nor a thief by his bulging forehead or the shape of his nose," declared Sir Evelyn Ruggles Brise, K.C.G., of England, in denouncing as a mere superstition the theory, encouraged and strengthened by the Italian school of criminologists, that there is a correlation between the mental and physical character of man.

Sir Evelyn was speaking at the Willard Hotel before a large and distinguished body of specialists on crime, representing both the American Prison Association and the International Prison Congress. He declared the progress of criminal anthropology had been retarded by the Italian conception, which he did not hesitate to call a superstition. To it he attributed the unfavorable and skeptical attitude toward the attempt to reclaim the criminal. Those who hold to the theory of the existence of the criminal type will get no comfort from Sir Evelyn's assertion that so far as statistics of physical measurements and the presence of physical anomalies in criminals have been classified, they present a startling conformity with similar statistics of law-abiding citizens. In other words, the physical characteristics of saints and philosophers, robbers, murderers, and "low brows" are oftentimes the same, according to the speaker.

#### Problem of Petty Offender

Contrasting American and English methods of treating criminals, Sir Evelyn took occasion to say that England will not learn from the United States until this country recognizes the petty offender as the equal burden of the state along with the felon class. He thought this country did not recognize the seriousness of the problem of the petty offender.

"The petty offender and prisoner awaiting trial," he said, "is as much a matter of state concern and control as the man under long and indeterminate sentence, upon whom you are now spending so much thought and labor and expense in your state prisons and reformatories."

The speaker declared the coming of the Old World to meet the new in the International Prison Congress is momentous in the results which may be achieved. He said that if in Europe they were inclined to cling too closely to the old classical idea of punishment, perhaps in America the tendency is to swing too far away from tradition. This congress should attempt to reach the happy medium, he advised.

"In England," he said, "the old-fashioned idea of the certainty of punishment will die hard, if it dies at all."

Hastings H. Hart, director of the children's department of the Russell Sage foundation, New York, said:

"Public homes for children, I believe, have seen their day. The public home for children has been superseded by a better system, that of finding permanent homes for those who have come under the care of the state. It is no longer necessary to maintain public homes for children whom circumstances has placed under the protection of the commonwealth. The test of the 'placing out' system has been made, and it has been found to meet the needs of the commonwealth. The child who is provided with a good home, no matter what his past tendencies, is often made a good citizen by being placed within the sphere of good influence."

The International Prison Congress closed its meeting in Washington on October 1st. The next session will be held in London in 1915. Sir Evelyn Ruggles Brise of London was elected president.

“pain, due to pressure upon nerve endings by swollen and infiltrated tissues, as manifested in inflammation, is promptly relieved by the application of moist heat.

Whether the inflammation be deep or superficial, moist heat, best exhibited in the form of antiphlogistine, relaxes tension, stimulates capillary and arterial circulation, encourages absorption of exudates, thus removing pressure and the always accompanying pain.

The therapeutic value of moist heat in conditions manifested by inflammation is conceded. The many superior advantages of applying moist heat in the form of antiphlogistine (the original clay dressing) is proven by the confidence accorded it by the medical profession and its ever increasing sales.”



## CALIFORNIA HOSPITAL ALUMNI NOTES

Miss Eva V. Johnson, formerly president of the Alumnae Association, writes under date of October 3rd: "Please send my Southern California Practitioner to the Sahler Sanitarium, Kingston, New York. I am always glad to see the Practitioner, and I don't believe any of the physicians read it with any more interest than I do.

"I am still here with my patient, a melancholia case of perhaps long standing, and her progress so far has been very slow. However, we are hoping for better things in the future. It is hard for me to be patient, for I am longing to return to my work in Los Angeles.

"It did me good to see the California Hospital Alumnae Notes in the Practitioner, which came this morning. I am always sorry when the girls fail to get them in.

"What a terrible thing that Times Building catastrophe was!

"With best wishes for the continued success of the Hospital and its work and workers,

"I am, very sincerely yours,

"Eva V. Johnson."

The following is the report of the Training School for Nurses of the California Hospital for the twelve years and three months of its existence to October 1, 1910:

### Report of Graduates of School

Number of nurses graduated.....	216
Number of graduate nurses married .....	48
Number of graduate nurses ill.....	5
Number of graduate nurses deceased.....	6
Number of graduate nurses private nursing.....	124
Number of graduate nurses hospital positions.....	17
Number of graduate nurses superintendents of hospitals.....	9
Number of graduate nurses office positions .....	3
Number of graduate nurses district work.....	2
Number of graduate nurses other work.....	2
Total.....	216

Miss Alice M. Dougherty, '09, passed the New York State examination and is now a registered nurse (R.N.) and doing private nursing in New York City.

Miss Edith Lampman, formerly superintendent California Hospital, has resigned as superintendent of the Flower Hospital, New York City, which she has held for the past year.

Mrs. Durbin, president of the Alumnae, was recently operated on for appendicitis, and made a prompt recovery. Her many friends made her room at the hospital a conservatory during her illness.



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# SOUTHERN CALIFORNIA PRACTITIONER

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Associate Editors,  
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Assistant Editors,  
DR. H. BERT. ELLIS, DR. GEO. L. COLE, DR. W. JARVIS BARLOW  
and DR. F. M. POTTENGER.

## SPENGLER'S (I. K.) TREATMENT OF TUBERCULOSIS.

BY W. JARVIS BARLOW, A.B., M.D., LOS ANGELES, FOUNDER AND PRESIDENT  
OF THE BARLOW SANATORIUM FOR THE TREATMENT  
OF THE TUBERCULOUS.

It is now over two years since Dr. Carl Spengler of Davos published his paper in the *Deutsche Medizinische Wochenschrift*, (September 17, 1908) giving the advantages of treating pulmonary Tuberculosis, with his so-called "I. K.," or Immun-Korper. His results at that time seemed so brilliant that it is a disappointment to find that publications from other physicians do not give as satisfactory results.

"I. K." (Immun-Korper) is a cellular extract from the blood of animals immunized against both types of tubercle bacilli, and Spengler says that the anti-bodies are to be found in the red corpuscles and not in the serum. In his article above referred to, he says:

"I have succeeded in proving that the chief location of tuberculous-immune substances in man or animals artificially immunized against tuberculosis, as well as in auto-immunized man, is not the blood serum. The chief sites of the production and storing are the blood cells."

He tells us the first signs of the effect of "I. K." is in the amelioration of the subjective findings and in freer breathing. A better appetite appears after the first injection and the invalids generally increase in weight rapidly. Where the fever has not continued too long the temperature falls at once and continued fever assumes the character of aseptic fever. In the most severe fever the recrudescence of fever may be rather high, nevertheless loss of fever occurs in many previously hopeless cases and often even in a strikingly short time. One of the most striking effects is the usually rapid diminution in the number of tubercle bacilli. They are not infrequently found after from eight to fourteen days' treatment, only in isolated examples, even though at the beginning present in large numbers.

Where this treatment has given such successful results has been reported by Spengler and his assistants and by those men working with Spengler, and yet on careful observation of the publications from other sources these

claims have not been accepted by men who have apparently carried out the method as Spengler laid down. The conclusions of several recent investigators are given here with the publications from which these abstracts are translated and taken. An endeavor is made to give both favorable and unfavorable conclusions as they appear and wherever the writer could find them.

#### FAVORABLE:

(1) From the general public hospital in Radautz, Austria. Director Dr. Piatkiewicz. (*Muenchener Medizinische Wochenschrift*, Feb. 2, 1909.)

##### Conclusions:

I. K. has a decided specific action.

I. K. cures progressive (most advanced) tuberculosis of the lungs in a strikingly short time.

I. K. cures slight and moderate cases of pulmonary tuberculosis invariably.

(2) Benohr, an assistant of Spengler, gives favorable reports of the treatment in the *Beitrage zur Klinik der Tuberkulose*, Wurzburg XVI, No. 4. Abstract of which is given in the *J. A. M. A.* of August 13, 1910. He tabulates the details of 130 cases of tuberculosis in which this treatment was applied at Davos, and Pumr of 46 other cases, while Westphal relates his experiences with it in Hanover. The conclusions of these writers are all favorable. Again Benohr writes favorably of it in the *British Journal of Tuberculosis* for July, 1910, giving the results of several German physicians, which are all more or less conflicting.

#### UNFAVORABLE:

(1). By H. Weicker and B. Bandelier. From Dr. Weicker's Sanatorium in Goerbersdorf. (Schleswig.) (*Deutsche Medizinische Wochenschrift*, Oct. 21, 1909.)

Report on 200 cases treated.

##### Conclusions:

"On the ground of our experience,

which is based on careful clinical observation of about 220 cases, treated strictly according to Spengler's directions, during a period of 15 months, we are compelled to conclude that Spengler's I. K. in all cases here treated, showed in no sense the effects which Spengler ascribed to his preparation."

(2) Dr. Hugo Schaefer, Director of the Sanatorium, M.—Gladbach. (*Muenchener Medizinische Wochenschrift*, Nov. 16, 1909.)

Detailed report of 14 cases treated:

##### Conclusions:

"On the ground of my observation made thus far, I may conclude that I. K. exercises no noteworthy influence upon tuberculosis either in a favorable or in an unfavorable sense."

(3) By Dr. Max Roth, from the clinic of Dr. Leubuscher, (*Muenchener Medizinische Wochenschrift*, Feb. 8, 1910.)

Report of 26 cases treated where all directions of Spengler were followed carefully and detailed report given.

##### Conclusions:

"According to our experience an influence by I. K. upon severe cases of the disease is excluded. Though some value attaches to I. K. treatment in moderate and early cases, a slight undeniable specific effect, yet curative results could not thus far be noted by us"

(4) By Mieczyslaw, Gantz. From the Hospital "Kindlein Jesu" in Warsaw. (*Wiener Klinische Wochenschrift*, July 14, 1910.)

An abstract of this paper is here given.

Report on 6 months experience in 14 cases; 2 of stage 1, 7 of stage 2, 5 of stage 3. Results: 3 died, 1 improved, 10 were worse.

In only one case were bacilli absent, but the clinical picture and positive tuberculin reaction left no doubt that it was a case of tuberculosis. All

were from hospital material where conditions were good for accurate observation. In no case was an improvement noted which was to be attributed beyond doubt to I. K. A slight improvement in general condition (findings) which I observed in a working-man after several weeks' detention in the hospital, with a fall of temperature after treatment in bed, can in no case be connected with the effect of the I. K., since the absolute rest, good hygiene and conditions of nutriment often give the same result, and since the objective changes and the number of the bacilli showed no improvement. No favorable change in temperature was noted, either in bringing a subnormal temperature to normal or in reducing a febrile temperature, both of which according to Spengler, do result. On the contrary in several patients a rise in temperature followed injection of the stronger dilutions, up to  $2^{\circ}\text{C}$ . This was undoubtedly associated with the injection. Usually, however, the temperature was not affected.

Objective changes showed not the slightest improvement after I. K. treatment. On the contrary in all cases it was possible to determine a clear progression of the local process, not in any case a result of the I. K., however. Gain in weight could be noted in only 3 instances. In all injections both the old and the recent directions of Spengler were followed closely.

#### Conclusions:

(1) I. K. does not give evidence of being polyvalent, of holding immune bodies against pyogenic organisms.

(2) I. K. does often cause a rise in temperature and increase in subjective and objective manifestations. It cannot therefore be considered harmless.

(3) I. K. is not to be considered an absolutely neutral solution ("bal-

anced") because it doubtless contains some specific substances. E. G., an almost faded Moro reaction, was brought to a severe revival by the injection of the concentrated solution. The same reactivation of reaction is known to occur in the case of the Ophthmo-tuberculin and the Hypodermatic test reactions.

(5) In Surgical Tuberculosis. A. Exener and R. Lenk. *Zentralblatt für Chirurgie*, Leipsic. July 23, 1910. (Abstract *J. A. M. A.*, Aug. 27, 1910.)

"This communication from the University clinic at Vienna in charge of Hochenegg reports the application of Spengler's I. K. in a number of cases of surgical tuberculosis with disappointing results. In 6 cases more than 6 months has elapsed since this treatment was begun and the influence seems to be rather deleterious. One woman with tuberculous peritonitis and enteritis, with slight fever, died with milary tuberculosis 2 months after commencing the I. K. treatment. In a case of bilateral tuberculosis of the testicles and a slight apical lesion, the lesions in the testicles seemed to show improvement under the I. K. at first, but the apical lesions progressed to florid phthisis and the patient succumbed 8 months after the beginning of the five months' course of treatment. In none of the other cases was any appreciable influence from the treatment discoverable and the use of I. K. has been abandoned."

From these publications and from others of similar nature which could be mentioned it would seem unwise and unwarranted to assume that "I. K." is a specific in tuberculosis or that it is superior in treatment to what is already known that tuberculin has done. That isolated or individual cases of tuberculosis under treatment of "I. K." have improved or may improve is not a proof of its specific nature because a similar, favorable result in certain cases occurs under any rational treat-



ment with or without so called specific remedies. It is to be noted that the successful reports of "I. K." treatment come chiefly from Spengler or his assistants, and in the above group, save one, that of Hertzberg, whose results are entirely too optimistic and brilliant to be considered reliable.

No mention of "I. K." treatment in tuberculosis can be found in the "Lancet." or by English writers, nor is it thought of sufficient value by our American colleagues of national reputation, who have considered and studied the remedy, to further its use, or recommend it. On the other hand there is more thorough study and research being made in the use of Tuberculin by conservative and well-trained men on both continents now than at any previous time. The value of tuberculin therapy is well recognized, especially if it is carried out according to the principles and manner advo-

cated by Dr. Trudeau. Baldwin in his "Progress in the Treatment of Tuberculosis" has well said, "It was a barren year that has not produced at least two sensational cures during the last 20 years;—and again that the cure of tuberculosis involves many things undreamed of in a laboratory."

With our present knowledge of the treatment of tuberculosis, if specific treatment is to be followed in selecting cases, the choice should be made in one of the preparations of tuberculin, rather than Spengler's serum.

That "I. K." may in experienced hands have value cannot be denied, and this is quite true of all new remedies. Time alone will bring the truth and leave behind only that which is valuable.

"I. K." may be obtained from Calle & Co., 530 Canal St., New York, the agents for United States and Canada.

Security Building.

## TRUE AND FALSE TABES.\*

BY JAMES T. FISHER, A.M., M.D., LOS ANGELES, CAL., PROFESSOR OF NEUROLOGY, COLLEGE OF PHYSICIANS AND SURGEONS, MEDICAL DEPARTMENT OF THE UNIVERSITY OF SOUTHERN CALIFORNIA.

I present for your consideration, two patients having practically similar symptoms, having entered the County Hospital about three months ago. The dominant symptoms which caused these men to seek hospital aid, are pain and discomfort in the lower extremities, together with an inability to walk without assistance. These represent two distinctly different diseases, one of which is curable and the other is of such a nature that treatment can never bring about a cure. The first patient, Mr. B. is a cab driver, thirty-two years of age, single, who has for the last ten years had his place of business on Spring Street near First, and whose face undoubtedly is more or less familiar to many

of you. His previous and family histories are unimportant, except that he has been a constant worshiper at the Shrine of Bacchus and his complaint has been of only one year's duration. During the first six months of the year, he had more or less numbness, and other peculiar sensations in both feet. Along with these sensory disturbances, he has complained of a gradual weakness and pain, involving both legs. This motor disturbance has really been the cause of his seeking hospital aid. He has been unable to do his work, because of his inability to get on and off his wagon, without staggering. The physical examination at the time of his entrance showed an absence of both knee-jerks, together

\*Case reports on two patients presented at the meeting of the Los Angeles County Medical Association at the Los Angeles County Hospital, October 7, 1910.

with a stocking anaesthesia to a point a few inches above the ankle. The posterior tibial nerves were both sensitive to deep pressure. The eye grounds were negative with the exception of a distinct pallor on the temporal side of the discs, the pupillary action being normal. There was in addition a moderate degree of amblyopia. In other respects the neurological examination was negative. The last two weeks the deep reflexes have nearly returned to normal. The other patient, Mr. W, is a man, forty-four years of age, married, a wholesale liquor salesman, who seeks hospital relief for motor disturbances and pain in the lower extremities. His family and previous histories are negative, except that he has indulged, as did the other patient for many years, in a considerable amount of alcohol. Specific history was denied. His symptoms began as did the other man's with sensory disturbances in both feet, and a gradual onset of incoordination in gait. The physical examination in this man showed the classical findings of tabes, namely, an absence of the knee-jerks, a tight feeling around the waist, a sensation of walking on velvet, together with the pupil which fails to react to light, but does to accommodation. No nerve tenderness obtained. It required no extensive knowledge of medicine to be

sure that we were dealing in one case with tabes, and in the other case with pseudo tabes. In the case of Mr. W, we have to do with all the classical symptoms of tabes, and with Mr. B, we have none of the tabetic symptoms, with the exception of the sensory disturbances, and loss of knee-jerk. In that it is somewhat rare to find tabes at the age of thirty-two, and that we had to do with much evidence pointing to an involvement of the posterior tibial nerves, together with an absence of the customary, pupillary reactions and that in addition, we found changes in color on the temporal sides of the optic discs, we may conclude we have to do with an alcoholic neuritis, which had it been more extensive, might have involved the upper extremities. The pallor seen on the temporal sides of the optic disc is a fairly common finding and has great diagnostic value as it is rarely seen except in certain toxic conditions—notably those due to alcohol and tobacco and is often seen in disseminated sclerosis. We have here affections identical in pathological anatomy and very similar in symptoms. The lesion in true tabes may be identical with that in the neuritic affection, but the history and physical findings render the diagnosis in the two diseases fairly evident.

Wright & Callender Building.

## RABIES—ITS HISTORY, ETIOLOGY AND TREATMENT.

BY GEO. L. COLE, M.D., LOS ANGELES, CAL., PROFESSOR OF APPLIED THERAPEUTICS, LOS ANGELES DEPARTMENT OF THE COLLEGE OF MEDICINE OF THE UNIVERSITY OF CALIFORNIA.

The developments of the last few years have shown conclusively that Southern California is not, as heretofore supposed, free from rabies.

Two years ago the disease unquestionably appeared in animals in this locality and one death occurred in a human being in Pasadena. This outbreak was so conclusively proven that

to many it was not a surprise when in the early part of 1910 there were found to be so many rabid animals in and about Los Angeles that the disease began to assume the nature of an epidemic.

One death has occurred in the city of Los Angeles, in a family of such prominence that it became very widely

known, and several deaths have since occurred in human beings in Los Angeles County.

To demonstrate that the subject is of sufficient importance to demand the attention of health authorities, and a reasonable consideration on the part of the laity, we need only mention the fact that since January, 1910, in the City of Los Angeles one hundred thirty nine animals have been conclusively shown to contain the Negri bodies, with undisputable evidence of rabies. To farther emphasize the subject, when it is known that no less than eighty-seven people in the City of Los Angeles and vicinity have undergone the Pasteur treatment for rabies because they have been bitten by either proven or suspicious animals that could not be definitely shown to be either positive or negative in response to the rabitic test, it will be readily understood that it is time that the medical profession and the laity as a whole should begin to recognize the importance of the subject. It is neither the loss of time, the cost in dollars and cents or even the suffering occasioned from the loss of an individual that amounts for all. To get at the bottom of the matter we must remember the mental anguish which is being sustained by these cases under treatment because of the uncertainty of their condition and the possibility of developing rabies.

The most recent well authenticated article on the subject is by Dr. A. M. Stimson, Past Assistant Surgeon of the U. S. Public Health & Marine Hospital, Washington, D. C., who has issued through the Treasury Department of the U. S. a pamphlet on "Facts & Problems of Rabies," known as Hygienic Laboratory, Bulletin No. 65.

Dr. Stimson has placed the matter in this pamphlet so scientifically, so concisely and withal in such an interesting manner that I feel a liberal

quotation from his article will be of more interest and more value to the profession and laity of Southern California than anything that the writer may have to say upon the subject.

"There has existed since ancient times a disease which, on account of its peculiar method of transmission, its unusually long period of incubation or latency after exposure, the violent and terrifying symptoms, the extreme suffering endured by its victims, and its uniformly fatal termination, has come, in spite of its comparative rarity, to be widely known to the general public and to be extensively investigated by scientists. At the same time there has been handed down from the ages when superstition and ignorance had as yet received but little counterbalancing check from the influence of reasonable or scientific investigations, a mass of erroneous belief which, in its extent and fantastic distortions, probably exceeds that to which any other malady has fallen heir.

"There still remain persons who are skeptical concerning, or even deny the existence of, rabies as a distinct disease. No attempt will be made to enter into controversy with them. If they are fairminded and possess an average amount of intelligence, a visit to a laboratory where scientific work in this direction is being done will suffice to dispel their objections even if their faith in human nature is so slight that they are able to regard those investigators who have devoted years of disinterested study to the subject as untruthful or very badly mistaken.

"Rabies is an ancient and widespread disorder perpetuated among the lower animals, chiefly the dog family, transmitted in nature to other animals and to man by the inoculation of virulent saliva through bites. It is undoubtedly caused by a living micro-organism, as yet not positively identified, which invades the nervous system, rendering



it virulent and inducing the symptoms. The period of incubation is variable, but relatively long, usually between one and two months. The symptoms are referable to excitation and finally depression of the central nervous system by the micro-organism or its products, with ultimate destruction of its functioning power. A general increase of reflex excitability is early noted. The centers for respiration and deglutition are especially severely attacked, with spasm or paralysis as a result. General convulsions of central origin frequently occur, paralysis of spinal origin may attack the extremities. The psychical functions are disturbed in degrees varying in their manifestations from morbid anxiety to delirium and mania. Pathological changes of a characteristic nature are confined principally to the nervous system. The disease is essentially the same in all of the many species of animals that are susceptible. Protection is afforded by inoculation with attenuated rabies virus and to some extent by antirabic serum and, so far as known, by no other means. The blood serum of immunized persons and animals possesses specific properties against rabies virus. Once developed, the disease is almost uniformly fatal. No other disease presents these characters in combination.

**"The earliest reference to rabies** is said to be that of Aristotle in the fourth century, B. C., or possibly Democritus in the fifth century. Hippocrates, who preceded Aristotle by about half a century, is said to have made no mention of the disease. It is natural, however, that in those days of very crude methods of diagnosis, the disease was confused with other nervous affections and that became of its long period of incubation, its outbreak in man was not connected with injuries received from animals. Other ancient writers mention it, but the first extended description was given by

Celsus in the first century, A. D. Caelius Aurelianus and Galen in the second century gave very good descriptions.

"The Arabian physicians and philosophers transmit, without significant additions, the opinions of their predecessors. The middle ages contribute nothing to our knowledge of the disease. The disease appears again in the medical writings of the fifteenth, sixteenth, and seventeenth centuries, although in the interval in other literature indisputable references were made to it. That a paralytic form occurs in man appears to have been first recognized by Van Swieten in 1771. Experiments on the virulence of the saliva were first successfully carried out by Zinke, 1804, on dogs and other animals, and he also showed the destructive action of phosphorus and arsenious acid on the virus.

"It remained for Pasteur to devise the method of subdural inoculation of material from the central nervous system, and from him the modern study of the disease may be said to date.

"The general statement may be made that there is no portion of the globe where man and other terrestrial mammals can live which is not potentially capable of harboring rabies. Climatic influences never operate directly to the extinction of the disease, once it has appeared. Rabies is relatively rare in sparsely settled districts unless rabid wild animals are prevalent, as, for instance, in parts of Russia, where the disease occurs among wolves to a considerable extent. The great continents all harbor rabies to a greater or less extent. It seems to be nearly stationary in some places, in others decreasing, and in some increasing. Increasing density of population, human and canine, of an infected region results in an increase in the prevalence of rabies unless rigid measures for its check are carried out.

"Rabies occurs from Greenland to the Philippine Islands, where Dudley reports 158 deaths in man collected by him. The disease as it occurs in the Arctic seems not to correspond exactly with that observed elsewhere and deserves special study. Colan refers to it, and interesting descriptions are given by Nansen in "Farthest North." Rabies was formerly believed not to exist in Constantinople, where the dog population is very large, but Remlinger has dispelled this belief. It is, however, relatively rare there when the dog population is considered, which is explained by the great prevalence of the paralytic type.

"Australia is said to be free from the disease by Bruce and Loir, who ascribe this condition to the peculiar fauna and the rigid quarantine on dogs which has been practiced for many years.

"There seems little doubt that different strains of virus have various degrees of pathogenicity, which may explain local differences in the disease.

**"Rabies in America.**—Rabies was observed on this continent early in the latter half of the eighteenth century. Accounts appear in the lay press as early as 1768. It appears to have occurred first in the Northern Atlantic States, but to have spread southward within a few years. Attempts have been made from time to time to secure data approaching exactness as to its prevalence in the United States, but in the past and present condition of mortality statistics in this country no accurate results can be obtained. If this is true of man, it is still more so of the lower animals. The positive results at hand, however, indicate that nearly every State in the Union has at one time or another harbored this disease in man or animals.

"An inquiry (Kree and Stimson) recently made by direction of the Surgeon-General of the Public Health and Marine-Hospital Service showed the disease to be largely confined to the

eastern half of the country during 1908. It is the general opinion of observers of the disease that it is on the increase in this section. Certainly more cases are recognized; but it must be borne in mind that there has been increasing activity in state and municipal agencies in securing and examining material for diagnosis.

"In the survey above referred to it appeared that during 1908 only ten States or territories were free from the disease in man or animals, namely, California, Idaho, Maine, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming. Reports were received of 111 deaths in man during this year, an inconsiderable number compared with the deaths from tuberculosis; but when we consider the suffering involved and that these deaths could have been for the most part prevented by intelligent action, the need of increasing activity in preventive measures is apparent.

"The loss of valuable live stock cannot be estimated from any data which we have, but judging from the loss in certain localities, it was very considerable and enough to extend a ray of hope that activity would be stimulated by it, although the death of a few children in the same localities would not be sufficient to arouse it. (An outbreak occurred in California in the latter part of 1909.) (Month. Bull. Calif. St. Bd. Health, Nov. 1909.)

**"In Great Britain** the disease is now extinct, as the result of well applied suppressive measures. It is practically so in the Scandinavian countries.

"As is the case with many other diseases, rabies may be quite prevalent in a territory without coming to official cognizance or gaining public notice unless attention is drawn to the condition by the death of some person from hydrophobia. This is well illustrated by the conditions reported by Salmon in the District of Columbia, where an investigation, stimulated by

such a death, revealed a quite unsuspected prevalence among dogs. We believe that there are comparatively few cities in the eastern portion of the United States where a careful investigation extending over a year's time would fail to reveal the presence of rabies in dogs.

"There is some reason to believe that skunks may propagate the disease widely among their own kind as the dog does, and cases are known of infection of man by this animal; but as a rule animals other than the dog or his kind do not transmit the disease another remove. This may be explained by their relative lack of ability, opportunity, and tendency to bite when rabid.

"The most general accepted view as to the manner of the **pathogenesis** of the micro-organism causing rabies is that upon its introduction beneath the epidermis or mucosa it finds its most favorable or perhaps its only favorable medium for propagation in the nerve endings or torn fibers of the region. Along the course of these it develops, not disturbing their function although rendering them infective, until the central nervous system is reached. Here the nerve cells are attacked, the first effect being a hyperstimulation of their activity, the final result a destruction. At the same time, as certain authorities maintain, there occurs the production of a toxin, extra or intracellular, which is responsible for some of the symptoms. This latter view is opposed by others, and the elucidation of the question constitutes an important problem with a bearing on methods of treatment.

"It must be admitted that, with the exception of the Negri bodies, the microscopic anatomy of rabies offers nothing which is constant or characteristic, although the changes above briefly described are met with in a majority of the cases. There is one,

however, not demonstrated by the microscope, which is absolutely constant for the nervous system and frequently present in certain of the glands, chiefly the salivary, and is absolutely characteristic. This is the acquisition of the property of causing rabies in fresh animals when suitably inoculated. For a discussion of the findings of different observers of the Pathological anatomy of rabies, see Hogyes (Remlinger), Marie.

"**The incubation period of rabies** is remarkable for its length and variability. Its length is in nature seldom under ten days, and may extend over many months. It is difficult to say what the longest period has been; but it is generally admitted that a year or more is not impossible. The majority of cases occur before the end of the third month. Extremely long periods as reported always lead to the suspicion of a mistake or the occurrence of an unobserved or forgotten intermediate exposure. The fact that the saliva of animals may possess infective properties several days before the outbreak of significant symptoms may explain the occurrence of unsuspected infections within the supposed incubation period, since trifling bites or licking of abraded surfaces by an apparently healthy dog would be likely to escape attention or be forgotten.

"**Incubation period in man.** Bauer, in 1886, published the results of an inquiry into the incubation period of 537 cases of human rabies, representing all the material available to him at that time. Seventeen of these cases had an incubation period of over one and a one-fourth years, and ten of the remaining cases were regarded as doubtful. The average period in the remaining 510 cases was seventy-two days. In males the average was eighty days, in females sixty-five days.

"**The excited or furious type in man.**



The onset of rabies is usually rapid. The patient usually shows some psychical change very early, becoming anxious, melancholy, and oppressed with a strange presentiment of harm. Insomnia is complained of. Such symptoms, however, are in many cases absent at first, and local numbness, tingling, itching, and formication in and progressing centrally from the wound may be the only disturbance. The wound or scar may become somewhat engorged and tender. Sometimes the first symptoms complained of is a strange sensation in the throat, difficulty or discomfort in swallowing, a sense of constriction of the fauces.

"Bain and Maloney record a case in which the first symptom was difficulty in walking, and another in which cardiac irregularity was the first sign. There are many cases recorded where the onset was apparently determined by some severe mental shock, and the initial symptoms may be apparently purely hysterical. In fact, hysterical manifestations are not unusual and may lead to a favorable diagnosis and prognosis. These symptoms are in some of the cases part of the psychological pathology of rabies, an aggravation of the usually less violent aberrations. The state of mind induced by the beginning disease often renders the patient susceptible to excitement on exposure to impressions which ordinarily would not produce it. Fright and terror may, therefore, be regarded in many instances as a manifestation of the disease, not as the determining cause of its outbreak. It is conceivable, however, that any influence causing over excitement of the nervous system with subsequent fatigue or exhaustion might predispose to the more rapid invasion of a micro-organism, or increase the susceptibility to a toxin. An initial rise of temperature is perhaps the most constant early

sign, the elevation being moderate as a rule.

"The symptoms usually progress without delay after the preliminary signs are observed. The forewarning symptoms may last several days before the decided outbreak, but usually only twenty-four to forty-eight hours. The 'grand symptom,' hydrophobia, is present in the majority of cases, although influenced by the patient's disposition and surroundings to a considerable extent. It arises from the extremely painful spasms of the organs of deglutition and respiration, which are induced by attempts to eat or especially to drink. These spasms are often of such an agonizing character that the thought of them causes a mental anguish not exceeded in the possibilities of human suffering of physical origin. Consequently the sight, smell, or sound of liquids suggests the act of swallowing and is sufficient to bring on an attack in many cases. The patient, if a person of exceptional self-control, may sometimes be diverted from the subject for a considerable time and be free from the painful seizures. Sometimes the patient goes through an elaborate formula in preparing to drink, like a child insisting upon a special arrangement of all accessories in an effort to protract the time before taking an unpleasant dose of medicine. Then an effort is made to gulp down a swallow of the liquid only to have it forcibly expelled with an accompanying anguishing spasm of the throat and larynx.

"The condition consists, therefore, of a hypersusceptibility of the nerve cells to external stimuli. If these stimuli can be removed, cell action may be kept temporarily in abeyance. The cell explosions may be evoked by physical stimuli and through the special senses. Drafts of air, light, sounds, and even smells, may bring on a convulsive seizure. Skin and tendon

reflexes are exaggerated. The respiratory spasm involves the thoracic muscles and can not be relieved by intubation. In fact, the glottis may be open during an attack. Solid food is usually more readily taken than are the fluids.

"Whatever the onset the disease usually progresses rapidly. In a minority of cases there may be periods of absence of symptoms which cause the hope of recovery and doubts of the diagnosis to be entertained. Remissions always occur except in the extremely rapid cases. As the disease progresses the symptoms become more severe. The mind is usually clear, questions being answered with understanding until the voice becomes indistinct and the words unintelligible. In a large number of cases the patient is very talkative, speaking incessantly about himself and his disease until interrupted by a spasm.

"There are periods of excitement which may be truly maniacal, the patient raging about the room, destroying furniture, and trying to escape. There is seldom, however, any tendency to injure other persons, much less to bite them as popularly supposed. After a violent period the patient may realize his acts and be sorry for them. He frequently seems to know when an attack is coming on, and begs to be restrained lest he injure someone. Sexual excitement, accompanied by priapism, is a frequent symptom. The voice becomes hoarse with a peculiar quality. The strange sounds emitted during expectation or on the onset of the seizure have given rise to the popular statement that the patient 'barks like a dog.'

"The convulsive seizures become more frequent and severe and distributed over a larger area. Sometimes the muscular contractions are so severe as to cause rupture of the mus-

cles. Small hemorrhages from mucous surfaces and elsewhere may occur. Vomiting is a rather frequent symptom, and the vomitus is often black. The color is said to be due to regurgitated bile, but blood also is sometimes found.

"Death may occur during the convulsive stage, but more frequently a condition of paralysis mercifully leads the patient on to death. The spasmodic seizures become less severe and frequent and less readily evoked. The muscles, racked to the limit of human endurance, become limp. The face, which had expressed terror and extreme suffering, becomes smooth and expressionless. The jaw drops and the mouth hangs open. There is commonly an excessive secretion of saliva of a ropy character which the patient is unable to expel and which flows out of the corner of the mouth in large quantities; but where this is not abundant, the tongue becomes dry and hard. The breathing becomes irregular and feeble, and finally stops. The temperature ascends before, and it is said immediately after death in some cases; but where this stage is prolonged the temperature is more likely to be subnormal. Sugar and acetone are sometimes found in the urine, although not as constantly in man as in some of the lower animals, especially the herbivores.

"The eye symptoms described are photophobia, nystagmus, and sometimes strabismus. In the paralytic stage the pupil is dilated from paralysis of the iris.

"In a general way, then, the symptoms may be grouped into three stages: That of prodromata, the excited stage, and the paralytic. They often merge into each other, so that their limits are uncertain.

"**The paralytic type is man.** This was early described by van Swieten. Because its symptoms are less marked than the violent type it has been in-

correctly diagnosed. In fact, its existence seems to have been lost sight of for a time.

"In 1887 Gamaleia caused renewed interest to be taken in the matter by his publication of a number of cases taken from medical literature and his own observations, and it must now be regarded as a rather common form of the disease in man, as it is undoubtedly in dogs and other animals. Pathologically it has been attributed to infection with a large amount of virus and to involvement of the spinal cord rather than the brain. The symptoms are those of the last stage of the excited form, without any pronounced antecedent symptoms of excitement. They bespeak a transitional form between the paralytic rabies of the smaller animals and the convulsive form of hydrophobia in man. Gamaleia sums up the manifestations in the cases reviewed by him as follows:—

"Onset with high fever, general, malaise, cramps, headache, and vomiting much as in the ordinary convulsive form. Afterwards, localized pains, ordinarily in the bitten parts, but rarely so when these are in the lower extremities. A heaviness and numbness of these parts follow, then ataxia and weakness followed by more or less complete paralysis. A girdle sensation is frequently complained of. Anaesthesia is uncommon. Consciousness is ordinarily retained, at least until late in the disease.

"The paralysis spreads with preceding or accompanying pains of the affected parts, invading the limbs, trunk, rectum and bladder, face, tongue, and eye muscles. Respiratory involvement is variable in the time of its appearance and severity. Inspiration is more affected than expiration. Dyspnaic convulsions may result when the condition is severe.

"More or less difficulty in swallowing liquids results from the respira-

tory embarrassment, but the symptom "hydrophobia" is caused more by the imagination than by the disease. Frequently normal respiration may be restored for a time. Death occurs by cardiac paralysis, according to this author.

"This form of the disease is more prolonged than the furious type, lasting up to seven and one-half days, while in the latter the average duration is three or four days.

"**Individual immunity** does occur, however, in animals; and occasionally dogs and other animals are found which appear to be refractory to inoculation by the severest methods. The same, it would seem, might be reasonably predicated for human beings.

"**Who shall receive the Pasteur Treatment?** Persons who have been bitten by rabid animals or who have had open wounds or scratches contaminated with the saliva of such animals should receive the treatment. At times the question has been raised whether persons who have drunk of the milk of rabid cows should be subjected to the preventive inoculations. While the possibility of infection by this means is extremely remote, there is some evidence that the virus can sometimes be present in the milk. On the other hand, infection through the intact mucosa of the alimentary tract is highly improbable, since the action of the gastric juice is destructive to the virus.

"Persons bitten by animals presenting symptoms strongly suggestive of rabies should receive the antirabic treatment, whether or not the suspicion is confirmed by histological examination and pending the result of the inoculation test, if such is made. The necessity for treatment arises from the fact that rabies is really much more prevalent among animals than is generally suspected, and too much valuable time will be lost by delaying treatment for the result of animal inoculation.



"Persons bitten by animals not showing any of the symptoms of rabies are not exempt from the necessity for treatment until the biting animal, which should be closely confined and carefully observed for certainty not less than two weeks, shall be shown to be free from the disease, since the saliva is known to be virulent sometimes several days before the onset of the symptoms; four to five days according to Roux and Nocard Zagarro, twelve days.

**"Suppressive Measures Against Rabies.** The suppression of rabies wherever it exists is worth undertaking seriously from the viewpoint of the sanitarian, the dog owner, and those who own valuable stock. The annual toll of human death is not very great, but a single death from a terrible disease which is preventable is a reproach to the sanitary administration. The loss of time and money to those exposed persons who are obliged to take the Pasteur treatment, frequently through no fault or neglect of their own, is very considerable. Their mental suffering cannot be expressed in dollars and cents. During 1908 at least two large hunt clubs were obliged to destroy their entire kennels because of infection with rabies, and many hundreds of valuable dogs were sacrificed for the same reason. The loss of stock—cattle, horses, sheep, and swine—from rabies mounts up to thousands of dollars annually in some areas of the United States.

"The measures by which rabies can be exterminated, or at least reduced to a minimum, are well known. It is their application which causes the difficulty, and the crux of this difficulty is popular sentiment and popular apathy. The average citizen either does not believe in the existence of rabies, or takes no active interest in the matter until a personal experience affects his pocketbook or his personal comfort, and then the active interest

which he suddenly develops extends no further than his personal affairs. Measures to be effective must be state wide in their application, and a uniformity of legislative and executive action in contiguous States is necessary if any lasting benefit is to be secured.

"The history of the fight against rabies in certain sections of Europe is especially instructive in this connection. Great Britain, an island, had little difficulty in completely eradicating rabies where the suppressive measures were administered centrally by the board of agriculture and fisheries in 1897, and in preventing its introduction by adequate quarantine. The same result was obtained in the Scandinavian countries, which are peninsular and have little connection with the mainland. Holland, less isolated, has been less successful, and Belgium, with an extensive French boundary line, still less so. In France the popular opposition to measures against the liberty of dogs, and especially muzzling, has prevented any considerable reduction in the prevalence of rabies except in certain parts where these measures have been well carried out. Germany points with justifiable pride to the extermination of the disease in certain parts where it was formerly very prevalent, but it has been powerless to prevent its persistence and even increase in certain border States, notably Silesia, where infection is continually received from Austria, and where the racial and philosophical differences in the inhabitants tend to impair the effectiveness of the measures.

"The States of the Union are for the most part not separated by natural barriers competent to prevent the spread of rabies from one to another. Consequently a uniformity of method must be adopted in order to combat the disease successfully. Antirabies regulations must have an areal dis-

tribution as wide as that of the disease, and must persist until, as in England, the disease is completely eradicated. Otherwise local and periodic outbreaks are bound to occur and a condition as bad as, or worse than the present one will ensue.

"Muzzling ordinances should prescribe that muzzles be constructed of metal, which should prevent biting, should be humane, and permit of the dog's opening its mouth, and should be fitted to the animal, being changed from time to time if necessary, with the animal's growth.

"It has been suggested that licensing authorities prescribe the exact type of muzzle to be employed, or even supply the muzzles themselves to secure a suitable article.

"Where muzzling is prescribed for the fiscal license year it is recommended that the license tag be firmly affixed to the muzzle itself, so that an unmuzzled dog would be amenable to the rules applying to unlicensed animals.

"Muzzling is effective by preventing dogs possibly afflicted with rabies from transmitting the disease by bites, by necessitating the frequent observation of dogs at feeding times, etc., and by indicating an ownerless dog by its absence. When a muzzle is removed from a dog during the period of the ordinance the animal should be restrained by chaining up or by confinement in a suitable inclosure to prevent its running at large.

"In conclusion it may be well to summarize briefly what we know about rabies and what we would like most to know.

"It is apparent that the disease is quite prevalent in the lower animals and not as rare in man as has been supposed. Exact information as to its prevalence in the United States is not available and its acquisition is

necessary. Concerning the species of animal susceptible to experimental infection, we know that all mammals with which man comes in contact can be successfully inoculated, but that those which play a significant part in the perpetuation of the disease are few in number and largely confined to the dog tribe. We know that outbreaks of rabies in animals are not confined to any particular season of the year.

"We have a good deal of data on the pathological findings of the disease, but there are many points concerning its essential pathology that require elucidation. We know that rabies is caused by a living micro-organism which invades the nervous system and can be thrown off in the saliva. The exact nature of this organism is still unknown, as is also the nature of its activities and products within the body. The isolation of this parasite, be it animal or vegetable; its cultivation upon artificial media, so that it may be observed under conditions favorable for the determination of its characters, and especially the extraction of its toxic products, if there are such, would seem to offer the greatest opportunity for the discovery of a means of curing the developed disease. Our knowledge of the symptoms of rabies is sufficient to enable us to make a diagnosis in the majority of cases, yet we lack a laboratory test which is applicable during the life of the patient or animal. Inoculation tests enable us to make sure the postmortem diagnosis when suitable material is available, but in practice they require so much time that their value is restricted. The Negri bodies appear to be specific for rabies, but the determination of their exact significance, and their relations to somewhat similar bodies found in other diseases, is still a problem and a most important one.

"Until our information concerning the causative organism and the essential pathology of rabies is made definite, our ideas concerning its immunity must necessarily be somewhat vague. We do know, however, that artificial immunity can be conferred during the usual incubation period and this knowledge has been of great service to us. The possibilities of anti-rabic serum have not been exhausted by trial. It deserves further investigation, but our present data do not warrant us to expect very much benefit from this source. The treatment of developed rabies by means of drugs, while it has received considerable attention in the past, perhaps because of the discouraging outcome of the earlier attempts at treatment, has received but little attention in recent years. In view of the facts that the balance of evidence leans toward the protozoan nature of rabies, and that certain protozoan infections are amenable to cure by specific drugs, it is our opinion that research in this direction should not be abandoned. The most promising line of investigation in this connection would appear to be based not upon the physiological action of the drug but upon its action upon the parasite. Here we are limited at once by our lack of knowledge. Administration by the intraspinal method should not be neglected.

"Attempts to improve upon the methods of the immunization of exposed persons are desirable, in order to eliminate the small percentage of failures and the very much smaller proportion of injurious results. In making such attempts, however, we must not jeopardize human life by the use of methods which are without experimental basis. The ill effects which have occurred in a very small proportion of treated cases should be traced, if possible, to their source, to determine whether they are

really attributable to the treatment, and if so to what element thereof, so that it may be remedied; or whether they really represent a benign influence of the treatment in modifying an otherwise fatal case of rabies into a mild form.

"Finally, as regards the eradication of rabies, we have now and have had for a long time all the knowledge of rabies necessary to effect its entire suppression. This knowledge can be summed up in a single sentence, to wit: Rabies is perpetuated in the dog through the infliction of bites by a rabid dog and does not arise spontaneously. If all rabid dogs could be prevented from biting other animals, rabies would in the course of a year be a mere historical curiosity of medicine, an illegitimate field of research for the investigator in pure pathology, a plaything for the controversialist. There are few infectious diseases the prevention of which rests, as in rabies, upon a single definite measure. The public can not say with reference to rabies, "Let the medical profession or scientist show us the cause of this disease and how it may be prevented, and we will do the rest." This information has been furnished, and it is incumbent upon the public, once it has been informed, to bestir itself. Otherwise, the patient work of 'patching a bad job' must go on, and the slow searching out of better 'patches' must continue."

Note:

**Hydrophobia from Skunk-bite**, editorial page 352, vol. 22, Southern California Practitioner, June, 1907.

**Skunk with Rabies**, page 396, vol. 23, Southern California Practitioner, August, 1908.

**Coyote with Rabies**, *ibid*.

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## MEASLES AND ITS EYE, EAR, NOSE AND THROAT COMPLICATIONS.\*

BY H. A. KIEFER, A.B., M.D., LOS ANGELES, CAL., ASSISTANT PROFESSOR OF DISEASES OF EYE, LOS ANGELES DEPARTMENT, COLLEGE OF MEDICINE, UNIVERSITY OF CALIFORNIA.

Measles is usually regarded as a very trivial disease by the layman and often so by the physician. This may be fairly correct if one considers the disease purely per se. But a careful observation of the complications that do occur, and the sequelae that so often follow, can but impress one with the fact that measles is a disease that calls for more careful attention than is usually accorded it, and that many of the sad results could have been avoided by greater care and appropriate treatment.

The object of this paper is to draw attention to the eye, ear, nose and throat complications only, in the hope that it may be of some benefit in helping others to avoid annoying and dangerous secondaries. A few statistics will also be appended concerning the late epidemic of measles in this city, which was one of the heaviest ever known here. Just what is the organism causing measles has not been definitely determined, but it is a well known fact that the secretion from the nose, pharynx, larynx and bronchi contain the specific virus of the disease, as well as do the blood and the skin.

The mucous membranes of the upper respiratory tract are always affected, and it is one of the characteristic diagnostic symptoms of the disease that it nearly always opens with a coryza, there being first a hyperemia and dryness of the mucous membrane, which quickly gives place to a copious secretion. The catarrhal condition eventually involves the nose, pharynx, palate, pillars, larynx and bronchi. Koplik's spots, consisting of slightly

elevated, bright red patches with a small, bluish-white center, either isolated or coalesced, and in the latter case appearing as simply bluish-white spots on a very red membrane, appear on the first day in the mouth, tonsils, pillars, pharynx and larynx. In less typical cases there is a hyperemia of the ventral surface of the soft palate consisting of numerous capillary fasciculi, or small bunches of congested capillary vessels, each bunch having a center from which its capillaries radiate. The tendency is for these spots, or fasciculi, to disappear about the third or fourth day of activity of the disease, or about the time of general eruption. The catarrhal discharge now becomes thicker, and there seems to be an exacerbation of the mucous membrane inflammation.

It is now that aphthous stomatitis and ulceration of the pharynx and larynx make their appearance in a large proportion of cases, and there may be formed a laryngeal membrane that is easily confused with a diphtheritic membrane. It should not be forgotten, however, that diphtheria may coexist as a complication. If there be any doubt whatsoever, resort should be had to the microscope and culture, and diphtheria antitoxin should be administered at once. Among other complications deserving of mention are (1) Angina Ludovici, characterized by inflammation of the sub-maxillary gland, swelling and tenderness around this region, hyperemia and swelling of the tongue and pharynx, fever, and dysphagia; (2) severe epistaxis which arises usually from erosion of a vessel in the cartilaginous nasal septum or in the floor

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of the nose; (3) bronchial catarrh and lung affections.

Measles, like scarlet fever, often leaves serious ear diseases in its wake. Estimates by competent observers as to the frequency of middle-ear inflammation accompanying or following measles range from sixty to one hundred per cent. The inflammation is often of a very mild character, and occurs so frequently in very young children who cannot localize their aches and pains, and so little attention is paid by the parents to mild protestations of pain in the ears, by children, which accounts in a measure for the very low percentage of cases in which it is discovered in the ordinary handling of measles patients.

While otitis media may make its appearance at any time from the second or third day of the catarrhal stage, to a month or two later, it most often manifests itself during the period of desquamation. Two possible types of otitis media occurring in measles are to be recognized: (1) the specific or unmixed form, which results from direct attack on the lining membrane of the middle-ear either through the blood or lymph-channels, or by extension through the eustachian tube; (2) the mixed form, in which other than the measles organism have found their way, usually through the eustachian tube, into the middle-ear.

The mucous membrane of the middle-ear, antrum and mastoid cells are all subject to attack, and when affected pour forth an exudate which contains the virus of the disease. This exudate, however, soon becomes absorbed or drains off through the eustachian tube, and the ear returns to a normal condition. But should pyogenic germs gain access to the parts during the stage of exudation, a purulent secretion will be formed, and we have the typical picture of suppurative otitis media, with possible perforation of the tympanic membrane,

caries of the ossicles or cochlea, and very likely mastoiditis with its possible complications of sinus thrombosis, meningitis or brain abscess.

It has been variously estimated that from three to five per cent of all cases of deaf-mutism are due to measles.

In the earliest stage of apparent activity of measles, the catarrhal stage, the eyes nearly always present an acute, catarrhal conjunctivitis with hyperemia, swelling, and considerable watery discharge, and quite a marked photophobia, lasting as a rule for a week or more. The secretion seldom becomes purulent, and then not till the eruptive or desquamative stages, which commence about the third and the eighth day respectively. The simple catarrhal condition seems to be dependent on the infection of the measles per se, while the purulent condition is due to a mixed infection. The former is inclined to terminate favorably of itself, but the latter form tends toward a chronic catarrhal condition, and a proneness to corneal ulcerations. Even though no apparent trace of the ocular lesion be left, the eyes often remain very weak and sensitive for many months or for years after. Keratitis is a not uncommon sequel, often not appearing till two to six weeks after the eruption, and at times leaves the eye with an irregular corneal astigmatism or with opacities.

Among the more rare complications are corneal infiltrations without ulceration, producing photophobia and impairment of vision. Keratomalacia or softening and sloughing of the cornea, usually ending in complete blindness; and optic neuritis, which is frequently followed by atrophy and partial or complete blindness at a variable period.

Catarrh of the nasal duct sometimes results in complete stenosis of this passage, giving rise to the symptom of epiphora, or to the more extreme condition of dacryocystitis, or abscess

of the lachrymal sac, with redness, pain and swelling over this region, oedema of the lids, conjunctivitis, and discharge of pus from the punctae lachrymali, or the formation of a facial fistula.

Statistics gathered from the reports of the Health Department of the city of Los Angeles during the recent measles epidemic show a total number of cases as follows:

	Cases.	Deaths.
October, 1909.	61	4
November, 1909.	126	3
December, 1909.	312	0
January, 1910.	2186	9
February, 1910.	3051	3
March, 1910.	2022	14
	—	—
Total six months,	7758	33

This report, however, does not show any complications of the special sense organs as being responsible for any of these deaths; yet we know, for instance, that a patient may die from meningitis, brain abscess, general septicemia and many other fatal conditions following mastoid disease, which has had its incipency in measles. This may account for what seems to be a discrepancy between the death rates of different months which could hardly be accounted for by the virulence of the disease, e.g. 61 cases in October with 4 deaths, and 3051 cases in February with only 3 deaths.

I have endeavored to form some estimates of the eye, ear, nose and throat complications of this disease in the recent epidemic above mentioned by sending communications to about one hundred and fifty physicians in general practice in this city. The responses, I regret to say, were not all available for this report, as quite a number failed to record the total number of measles cases, thus failing to afford a number on which to work out the ratio of complications to the

whole. In many cases, also, there was a failure to report the specific kind of involvement of an organ, as for instance, where the eye was attacked, was it a conjunctivitis at the time of the eruption, or a phlyctenular Keratitis coming on some time after the disappearance of the general disease.

So it will be necessary to accept this report with a good deal of generalization.

Total number of measles cases, 422  
Total number of eye cases, ....139  
Of these 119 presented conjunctivitis, I presented Keratitis, and the balance were not specifically recorded.

Total number of ear cases.....39  
Of these, 11 were middle-ear abscesses, and 28 presented ear pains without apparent inflammation. Very strangely this does not show any mastoid involvement in all these cases, and proves conclusively that measles is not sufficiently recognized as a cause of mastoiditis, for the writer is aware that among these 422 measles cases there were several cases of mastoiditis, though the reports made no mention of such a complication as occurring.

Total number of nose cases.....21  
Of these, 12 presented epistaxis, 3 presented pus discharge of uncertified origin, and 2 had involvement of the accessory nasal sinuses. Here again there were a number of cases of severe nasal complications that were not recognized by those in charge at the time as having their origin in the measles.

The mouth was involved in 8 cases, 3 of which presented ulcerations.

The tonsils were attacked in 25 cases, 4 of which were designated as follicular tonsilitis.

The pharynx twice presented complications of unspecified character.

Involvement of the larynx was reported in 14 cases, 6 of these presenting oedema, 6 ulcerations, and two of them "paralysis" of the vocal cords.



Besides these there were reported,—“supra-orbital neuralgia,” one case; “spasm of the oesophagus,” one “spasm of the muscles of deglutition,” one; “cellulitis of the neck (no pus)” one; “diffuse pharyngitis” three; “acute laryngitis” one; “Herpes Labialis” four; and “deafness,” two. Chicken-pox complicated one case. One practitioner, well known as an authority on tuberculosis, says “From the standpoint of tuberculosis—it is quite a common thing for us to find patients who have gone down following an attack of measles”.

A comparison of these statistics drawn from private practice, with those gathered in certain hospitals where every patient is under careful observation by a man trained in the specialties, working in conjunction with the general practitioner, reveals the fact that there is room for a great deal more careful attention to these important organs in the average measles patient than is generally given.

Confinement to a dark room, or at least one with very moderate light, together with a little simple boric acid solution will often do a great deal toward the prevention of early eye complications, just as the timely application of thermal remedies may prevent middle ear abscesses, or the early opening of a tympanic membrane may prevent the supervention of mastoiditis. But the physician should not consider that he is through with his case when the rash has disappeared and desquamation is complete, any more than he is through with the scarlet fever patient after he has finished peeling.

These complications often do not make their appearance till about six or eight weeks after the rash has disappeared, and the patient, whose body has been weakened and resistance has been diminished by the preceding disease, and whose eliminative functions are below par or may have been seriously impaired, finds he has a serious fight on hand to over-come the new invasion. A Rhinitis with crusting and pus formation appearing at this time is very apt to terminate in suppuration of the accessory nasal sinuses; superficial ulcerations of the cornea display a marked tendency to perforate; and otitis media unless actively treated is likely to terminate in mastoiditis which may end in death. In such cases, an ear which has been discharging without diminution in the quantity of pus for three weeks or more must be regarded with great suspicion as involving caries of the mastoid, even though there be no tenderness of any portion of the mastoid, and no variation of temperature more than one degree above or below normal. Sensations of pain and tenderness are often diminished by reason of destruction or paralysis of the terminal nerve filaments.

In conclusion I would state that it is the duty of the physician to make routine examinations of the special organs mentioned at regular intervals, so as to combat early any complications that may present in those parts; and further, no case should be regarded as free from these dangers till a period of six or eight weeks has elapsed after the cessation of desquamation.

213 Fay Bldg.,

## NERVOUSNESS IN CHILDREN.\*

BY JOSEPHINE A. JACKSON, M.D., PASADENA.

A normal child is not a good child: He will yell and scratch and bite, and lie and deceive and steal, and use arti-

fice to gain his point, but gain it he will if he be normal.

The good die young or are nervous;

\*Read before Pasadena Branch, Los Angeles County Medical Association.

and if they are good and nervous they never die, for the nervousness gives the necessary expression to the thwarted instincts.

A colleague's little daughter was a guest at my table on several different occasions and had behaved so circum-spectly as to arouse some apprehension on my part, but at the next meal time the cleverness and pertinacity displayed in getting more cherries, dispelled all fears.

To relinquish one's end means either that there is no earnestness of purpose, no "he wants what he wants when he wants it," or that there is lacking the moral tone to get, "what he wants when he wants it," or that he has substituted for the **material** gratification desired, a morbid **psychical** gratification in self-pity and the sense of martyrdom; or if possessed of sweet reasonableness, he has, to use Freud's expression, "sublimated" his instincts into nobler forms of gain.

If there be no intensity of desire, and if there be no moral tone, there can be no battle royal between mental processes with resultant nervousness.

The child who obeys implicitly, but in sullen mood, or from coercion, or for the purpose of concealment has not given expression to his mental tendencies, and the repressed force will manifest itself in unexpected manner.

Expression carries with it gratification, and the strength of the feeling tone accentuates the habit, and habit spells comfort.

Nothing gives more surprise to the neurasthenic or his friends, than to be told that he obtains pleasure in his disabilities, that he does not really wish to be well, that he is indulging in a "spree" when he gives way to his nervousness quite as much as is the man who takes too much liquor. The child who sits and sulks, or lies on the floor kicking and screaming, or abstains from food or play is obtain-

ing an intense though peculiar form of gratification and for this reason is not worn out or exhausted by the tantrum although an appearance of exhaustion may be a part of the picture. It is only in those cases in which the unconscious mind of the patient is really possessed of the idea of dissolution that there is danger, and then nothing can save him except to be dispossessed of that idea. The same fear in the conscious mind alone is fraught with no danger.

Nervousness in children differs in no whit from that in the adult, it being in each case the expression of immaturity relative to the race.

The child "in utero" and in infancy passes through all the stages of the evolution of the race, and the latest developed characteristic, and therefore that of least stable equilibrium is the faculty of inhibition, or cerebral control and this is only reached in its fullness with years of maturity. The phenomenon of convulsions at the onset of the acute infections in infancy, and its absence in the adult evidences this undeveloped state of cerebral control.

The racial significance of the faculty of inhibition is adjustment to environment, the putting out from the field of consciousness all reaction to stimuli that do not need conscious attention, such as the extremes of acuity of vision, hearing, smell, touch, sense of the passage of time, orientation, etc., so that the conscious mind may be untrammelled in its handling of the racially new problems.

The nervous person is lacking in this faculty of inhibition and touches the extremes of the scale of sensory stimuli, shows over-awareness, or hyper-aesthesia, and at other times anaesthesia or complete loss of conscious perception.

The child who is instinctively afraid of the cat, dog, horse or chicken, who dislikes the feeling of feathers or

rough paper or absorbent cotton, who is aware of and dislikes the smell of ants, etc., is harking back to an ancestral characteristic that at one time was adapted to the preservation of life; he is undeveloped relative to his race.

Nervousness in the adult is immaturity relative either to the race or to the individual's age. Dubois says there is a characteristic lack of logic in the neurasthenic; the conscious mind fails to exert its influence, and the unconscious mind with its power of unerring deductive reasoning starts from a false premise and reaches an erroneous but almost unalterable conclusion. The obvious indication is to introduce a true premise either directly into the unconscious mind by suggestion, hence without awareness; or through the conscious mind by persuasion, the appeal to the reason. Manifestly this is the method of choice since it reaches the crux of the situation by restoring cerebral control.

To make application of the principles involved in displacing erroneous ideas, or false premises, it may save time to give concrete examples:—

A child under two years of age, alert, intelligent, and with abundant moral tone, has reacted to an emotion of fear and anger, caused by falling, by becoming temporarily unconscious each succeeding time under less provocation. The cure is to introduce a new feature into the complex, and with an intense feeling—tone; for example:—At the instant of falling pick the child up with a jerk and say to it sharply, "What are you about? Be more careful about falling." It works, and the easy path from emotional overflow to motor instability and convulsions is blocked.

A child is constipated; impress the father and the mother with the gravity of this as a symptom of nervous instability—it is not a physical condition,—have them know that over-

anxiety about it intensifies it, convince them that simple varied diet and an unemotional common sense attention to the formation of a habit for the time for going to stool, will produce the desired result; it will do so promptly.

A child of twelve with a wry-neck of six weeks' duration, occurring some thirteen years ago, was handled by a suggestion, a method that has grown increasingly distasteful to me through the years.

I said to him in a convincing tone, and with full conviction: "I know something to rub on your neck that will cure you," and this was perhaps my first and only use of witch-hazel. To accentuate the feeling tone in connection therewith, a children's party was planned and consummated the same day.

Another child with a wry neck asks whether it may go to a party tomorrow; the answer is, "Yes, if your neck is better, so that people won't see it, and I think it will be." It was cured.

A school-room, the proverbial bad boy, but a very good friend of yours. The stillness of the study hour tempts him to make a sensation and acting on impulse he springs noisily from his seat and grins for approval from the children. The children look to discern the emotion in your face; it shows not even surprise; you look down at your work, they resume theirs. The incident is closed, having failed of its purpose.

One of the most intense cravings of the unconscious mind is for an audience, and the method of isolation in treatment obviates this factor and adds another of considerable value, that of accustomedness to the physician's expectation of success.

Accustomedness may account for the general attitude toward questions relating to the genital apparatus and the genital sense.

Children early sense the efforts at



concealment on the part of their parents on the facts of genesis. They attempt to analyze the motives for concealment, and gather that it is shame, and shame means sin.

This conception cannot be brought into harmony with the unconscious mental processes arising from the instinct of race preservation which in strength stands second only to the instinct of self-preservation.

Is not the real reason for this hesitancy on the part of parents to discuss these questions with their children, the fact that the interest is so vital that they fain would speak of it with bated breath, as they do of Death or Deity or Devotion?

The air of bravado or lightness or repugnance is an instinctive attempt to conceal the real feelings of the soul.

The child normally wants to know what is inside of a sealed parcel. In

satisfying him this instinct has been given its natural outlet.

Should he obtain the knowledge surreptitiously a new mental conflict is established between his instinctive sense that "Whatever is, is right," and his acquired idea that one of his body functions is vulgar and indecent and to be deprecated.

In analyzing the mental attitude toward the discussion of social questions let it be seen that prejudice enters in, and in the words of Jas. J. Putnam, "Prejudice often means a strong instinctive attempt to set aside as false, an influence which we feel that if differently presented we might be forced to accept, at least in part, as true, and the strength of the prejudice measures the importance of the half-felt but perhaps wholly suppressed truth. To say the least, our prejudices express feelings that at the moment we cannot or will not put to the test of reason."

## HEMORRHAGE FROM MIDDLE CEREBRAL ARTERY.

### Report of Case.\*

BY R. F. PALMER, M.D., MESA, ARIZONA.

Patient, M. H.; male, age 41; by occupation a horseman; family history, negative; personal habits, a steady though not hard drinker.

In April, 1908, while handling some loose horses in a corral, patient was kicked in the right side of head above ear. He was a little dizzy for a few moments but quickly recovered and went on with his work. After about half an hour, he again complained of feeling dizzy and a little nauseated. He went to his room and bathed his head with cold water; the symptoms continued, however, and it was at this time I saw him first. He was lying on his bed with a cold wet towel over his eyes; examination revealed a slight scratch on the scalp above his

right ear, no tenderness, swelling nor pain being present. The pupils were equal and no facial nor tongue paralysis could be observed. The left arm seemed to be markedly weaker than the right. There was no apparent difference in the lower extremities. The patient complained of much nausea and belched frequently, though he did not vomit. A dose of salts was administered and the cold cloths continued. On my return an hour later the patient had become unconscious. The right pupil was dilated and divergent.

My colleague, Dr. J. E. Drane of Mesa, was called at this time in consultation and confirmed a diagnosis of Middle Cerebral Hemorrhage. Prep-

\*Read before the Arizona Medical Association, April 20, 1910.

arations for operation were at once begun; but a short time afterwards, as the patient was about to be removed to the operating room, he became suddenly cyanotic and died within a few minutes.

At a post-mortem examination made the following day, the skull was laid bare over the right side of the head. The suture between the squamous portion of the temporal and the parietal bone was found separated, and on opening the skull a large blood clot was found between the dura and the bone over the posterior branch of the middle meningeal artery.

This case is offered not because of any peculiarities which it presents, but more as a reminder of the fact that the most trivial appearing injuries of the head may result fatally, and if we would save these patients we must act quickly lest the opportunity slips from us while we are thinking.

It is true that death in this particular case came very quickly and unexpectedly. Had I been more alive to the situation I would have taken less time in preparation and a saving of

even 15 minutes would perhaps have been sufficient to have saved his life.

The symptoms of injury to the middle meningeal artery with a compound fracture in the temporo-parietal region and external hemorrhage are very evident. When, however, the blood does not escape externally and the injury to the brain is not sufficient to cause immediate unconsciousness, a characteristic set of symptoms result.

Immediately after the injury the patient feels comparatively well but after a period which does not often last over a very few hours, the increasing hemorrhage causes the characteristic symptoms of cerebral compression. There is headache, dizziness, nausea, vomiting and restlessness; gradually changing to stupor, sleep, coma and death.

The death rate in these cases has been very high. In many of them the associated injuries are of such a nature that nothing can be done. In some, however, an early diagnosis with prompt operative interference would have saved the patient.

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## ANTERIOR POLIOMYELITIS.

BY ELBERT WING, A.M., M.D., LOS ANGELES.

Prior to 1907, thirty-five epidemics of anterior poliomyelitis were reported and about twenty have been since, and since that date the epidemic disease may be said to have become established as an entity.

In the New York epidemic of 1907 there were 2500 cases reported. Other recent epidemic reports are: Zappert, Vienna, 1908, 266 cases; Manning, Wisconsin, 1908, 352 cases; Rezkah, Krause and others, Rhennish Westphalia, 1909, 500 cases, and McClanahan, Nebraska, 1036 cases. Scandinavian data indicate that the contagion can be carried by intermediate persons and that the incubation period

varies from 3 to 20 days, with an average of 10. Flexner believes that the disease has been introduced to this country from Europe through Boston and New York, and has spread thence to Wisconsin and Nebraska.

The extent and fatality of the recent epidemics have stimulated a study of the disease along strictly modern laboratory lines. Simon Flexner and Paul A. Lewis have done most of such work in this country, and Landsteiner, Levadatti, Popper and others, that in Europe.

Joseph Collins published a paper in the epidemiology of the disease in the *Journal of the American Medical As-*

sociation for June 11, 1910, and Flexner and Lewis have made a number of reports of their work in the same journal during the last year. In *The Journal* for September 24, 1910, Flexner contributes a full report of his own work and an elaborate analysis of the subject. This note is based upon the article mentioned.

The virus is a living organism, is filterable, passes through even a Chamberland filter, and has been found in the general blood, brain and spinal cord. The peritoneum, general blood, subcutis, large nerves, brain and spinal cord and certain mucous membranes, have been found to be avenues of infection. The successful work has been done in monkeys. If under anesthesia the nasal mucous membrane is scarified and rubbed with infected material the disease uniformly develops in monkeys. Flexner believes the nasal mucosa to be the part of elimination of the virus to the outer world.

Immunity is produced by an attack, but as yet no protective serum has been produced. The nose seems to be immune, monkeys are undesirable media, but the work with the sheep is encouraging.

The clinical results in experimental cases in monkeys closely parallel those in man, with however a mortality of 50% in monkeys against 10% in man.

This work has probably cleared up the pathology of all kinds of poliomyelitis and has shown that the term anterior poliomyelitis is a misnomer.

No parts of the medulla or spinal

cord escape the necrosis which occurs is due to anaemia which in turn results from perivascular pressure. The primary lesion is an infiltration of mind cells in the perivascular lymph spaces. The necrosis of nerve tissue is due to anaemia caused by the pressure of these infiltrating mind cells.

Where the pressure and anaemia are permanent necrosis and permanent paralysis occur, where temporary, the necrosis does not occur and paralysis is slight or temporary or both. The vascular supply to the cord is first greatest in the anterior horns and next in the cervical and lumbar enlargements.

Again vascular distention in corresponding segments and cross sections of the cord is remarkably irregular, and the irregular and eccentric distribution of the paralysis exactly correspond with that of the vascular supply to the spinal cord.

Flexner believes that the *Diplococcus intracellularis* is never the Pathogenic germ in the disease, and that more than one as yet unknown germ may be found to be, and that in the lower animals, poultry, dog and horse the cause may be found to be peculiar to the species affected.

This report clearly shows that, the study of experimental poliomyelitis has revealed many points of great importance concerning it, and affords hope for the discovery of a specific method of treatment, it also demonstrates the importance of quarantine, which in the Nebraska epidemic was promptly effective when it was absolute.

Kerckhoff Building.

## BRAINS.\*

BY GEO. D. TROUTMAN, M.D., TUCSON, ARIZONA.

It is my desire this afternoon to banish some of the clouds which obscure and distort into different images, the fixed relation of brain to

mind. I shall feel abundantly repaid if my hearers are convinced of this one simple point: That normal mental process depends upon the integ-

\*Read before the Arizona Medical Association, April 20, 1910.



urity of the brain, and that it is the brain which is to be investigated by the physician in all cases of mental disturbance.

In my personal experience as a medical witness, investigating cases of alleged insanity, I have noticed a confusion of the meanings of brain and mind. The most learned judges have used them synonymously. Testifying physicians easily fall into this same error, and fact with metaphor becomes mixed.

A late medical text book on diagnosis, failed to find inconsistency in attempting to describe "Diseases of the Mind" sandwiching a chapter on this interesting subject between diseases of "Lungs" and "Muscles." The first page tries to define mind, then suddenly gives up and says, "To be explicit, it is the unanalyzable elements of consciousness." Then for some more pages it proceeds with a mystic jargon of technical and abstract nonsense, dismissing the muddled dissertation with the happy afterthought, "We must return to the physical substratum of mind," namely the living brain.

"Physiology and pathology prove clearly, that the brain alone, is the seat of all normal and abnormal mental action. In every case of insanity, the brain is either functionally, nutritionally or organically diseased. This disease of the brain is the proximate cause of the mental disorder. Rare cases of disorganization, where no disturbance of mind is apparent, does not invalidate the result of our every day experience. It is not my intention to imply that every kind of cerebral disease is insanity. Gray matter of the brain is proportional to the intelligence; in it alone is seated the function of thought.

The human brain requires at least, that the gray cortical matter of the Rolandic areas shall be sound, if its functions be properly performed. We

no longer locate in the prefrontal region the control of the highest sensations. It has become known to all students of brain pathology, that the most deeply and frequently implicated sight of organic lesion in the insane is in the cortex of the motor region. A brain disease of this gray matter, necessarily produces reduced or enfeebled mental response.

The usual classification of insanities is based upon mental qualities and symptomatic conditions, and not upon the physical substratum. Yet we all know, that insanity means a disease of brain, manifesting a group of symptoms—that too often are confounded with the actual disease. If this be true, we have a practical basis for subdividing the various forms of insanity, and retaining the advantage of the etiological plan.

I feel it is our duty to develop and systematize a pathology of insanity, that both the legal and medical fraternities will recognize as scientific. I consider it possible to predicate the exact relation of disease of brain, and the ensuing symptoms.

Physicians are the most careful observers of the deviations from the normal standard of bodily health, yet are usually so sympathetic with the family having a member afflicted with a brain disease, that they will not take the initiative and plainly state the fact, preferring to overlook important evidence of insanity, unless the case develops the symptom of homicidal mania. There is no reason why we should not as quickly recognize a disease situated within the skull, as in any other cavity of the body.

We would prove ourselves more consistent, if we, like the German school, attempt an exact nomenclature for brain disease, and use terms that express a physical condition, possible to be affirmed or denied, even at risk of violence to venerable customs. Lunacy, melancholia, mania, and de-

mentia, are merely barbaric names, for symptoms pointing to brain pathology.

What is that pathology? There is always connection between cause and effect. It is our duty to adhere to the axiom, that insanity is a disease of the brain.

The four commoner divisions, where the physician is called upon to aid the law, in determining extent of brain involvement, are drug-addictions, criminal acts, validity of wills, and insanity requiring restraint and treatment. I will not attempt to cover the vast field opened by mention of above topics, but it appears to me, there should be more uniformity in our investigations of these allied questions.

Often an attorney, by a transfer of emphasis, from an essential to a non-essential fact, changes the point of inquiry. I believe the hypothetical question is frequently an example of unfair coloring of evidence, and the answer thereto does not represent the opinion of the expert upon the real issue. Admitting there is much wisdom in common law, there should be less regard for precedent of opinion, delivered a half century ago. Let us shatter this idol of precedent, and through the exercise of common sense, give it no more weight than we do the superstitions that held sway a century ago, when an insane person was supposed either to be possessed of devils or bewitched.

I wish to quote here a few instances if legal opinions and point out wherein they contradict medical teaching: Casper stated, and it is held true at law, "That any one should be held responsible, if the impulse under which he acted was not in the sphere of his maniacal conceptions." Now in medicine we are taught that intelligence is altered in its totality if altered in a part—mind is a unit—indivisible—occupying some portion of the solid brain." Jarman on Wills, states that,

"Though the testator be afflicted with distemper of mind, and the will is consistent with his intentions, when he was of capacity, it must be sustained." This may be just, but I do not understand how it fails to conflict with, "The act of an unsound mind is void." The "brain storm" that swept through the Thaw trial, was familiarly used to describe a brief state of mental emotion. It is not a scientific term. "Brain storms" usually indicate a pathologic condition of the brain, but like the entire list of phrases used to establish the sound or unsound mind, are not of specific significance.

The lucid interval, or momentary intermission of insanity, is a fallacious assumption much used, that at the time of the commission of some act, as for instance the signing of a will, the brain throws off disease at that moment, and immediately after the act, disease may return in full force, and remain until the end. Under this ruling possessors of property fall an easy prey to designing persons.

In England the highest degree of soundness is required to make a will. Otherwise property is disposed of according to statutes. Testamentary capacity has so often been misinterpreted in the United States of America that Dr. Gray sarcastically comments that the law, in order that all may understand it, should read, "Everyone has testamentary capacity except slobbering idiots and raving maniacs. The statutory formula, sound mind and memory, is without a definite meaning, because it necessarily presents a different idea to each of us.

Confusion arises, because lawyers mean by the psychiatric term, unsound mind, conduct of a certain character, whereas a physician means by insanity, an unsound mind, one of the effects of which is to produce such conduct.

To speak of a diseased mind, is clearly a misnomer, a thingless name

of a powerless phantom; yet in law, the evidence adduced is that an accused person is or was of a diseased mind. If the mind is composed of unanalyzable, immaterial elements, and each investigator, witness and judge attempts analysis from their different viewpoints; each selecting his premises, there necessarily will be marked variances in conclusions. There never can be a sharp line between health and disease, and sometimes the question, is a man sane or insane, may be the cause of an honest difference of opinion between physicians.

"Great wit and madness, sure are close allied,

And thin partitions do their bounds divide."

Investigation of insanity by a physician, should simply become a question whether the symptoms observed

are the products of a brain diseased, and to such a question, usually, there is not enough room for argument to permit even an ordinary difference of opinion of medical experts, if they are honest to the courts, jury, attorneys, and themselves.

In accord with the modesty of the profession, founded upon the sciences of anatomy, chemistry, and physiology, let physicians admit the limitations of human knowledge, and refuse to grapple with sophistic theories they have no means of demonstrating.

The time approaches when law must unite in harmony with medicine, to scientifically solve their common problems of insanity. To do this they must cease juggling with metaphysics, and appreciate fully, that they are dealing with tangible and existent brains.

## DIFFICULTIES IN THE CURE OF TUBERCULOSIS.\*

F. M. POTTENGER, A.M., M.D., LL.D.

In speaking of the curability of tuberculosis, I have often said that tuberculosis is the most curable of all chronic diseases, but the most difficult to cure of all curable diseases.

The cure of tuberculosis depends largely upon the earliness of diagnosis and the promptness and intelligence of treatment; consequently the first problem of cure is associated with the difficulty which surrounds the making of a diagnosis.

Tuberculosis probably begins in many instances in childhood; in fact, we know that between 70 and 90 per cent of children are infected with tuberculosis before their 14th year. Most of these infections heal, while many of them, although not healing entirely, remain in a state of quiescence most of the time, only showing symptoms now and then. Later in life some of these early infections also

take upon themselves activity and produce marked symptoms such as are common in advanced tuberculosis!

The patient who is suffering from early tuberculosis feels a little tired, he finds that his work does not go as easily as it did, probably he is a little restless at night, not sleeping quite as well as usual. His appetite may be variable and he may lose a few pounds in weight. He may or he may not cough. If he takes his temperature there might be a slight raise of a few tenths of a degree. Neither he nor his family physician who is accustomed to treat him for slight illnesses, are prone to look upon such slight symptoms as being those of a disease so serious as tuberculosis! Sometimes the first symptom recognized by the patient is blood splitting, which should always be considered as due to tuberculosis unless definitely

\*One of a series of weekly talks given to the patients at the Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, California.



found otherwise. At other times a pleurisy is present. Pleurisy is nearly always tuberculous.

As a rule such symptoms do not last long. The patient rests, changes his occupation, goes away from business for a short time or goes away to the country, takes a tonic, or changes his usual method of life in some way and recovers for the time; the disease again becomes quiescent and probably no symptoms show themselves for a long time. Often it is only when the disease has existed for a long time and shown such symptoms as these many times that it is diagnosed. During the period of early symptoms, there are, as a rule, no bacilli in the sputum and the diagnosis must be made without the microscope. The clinical history must suggest the disease but too much reliance must not be placed on a chest examination at this time, unless it be made by an expert.

No less a difficulty than that of making an early diagnosis is that of convincing the patient that tuberculosis is present when the symptoms are no greater than those just described. It is almost impossible for the family physician to convince a patient that he has beginning tuberculosis at any time when the symptoms are so slight. Even specialists whose opportunities for making diagnoses are much greater and whose opinions are regarded highly by both physicians and laymen, often meet with great difficulties in convincing patients that they have tuberculosis at this early time.

There is probably no disease which is more mistreated than tuberculosis. There is none that is more difficult or more expensive to treat right. The great majority of the cases develop among the poor and unless the municipality and the State furnish the treatment for them, it is impossible for them to secure it. Those who are in better circumstances and can afford the best treatment have other diffi-

culties. They often lose time after the diagnosis is made before treatment is begun. While they are endeavoring to adjust their affairs preparatory to treatment the bacilli keep on working and the disease advances. In the first place, they may fall into the wrong hands. Quite often they consult advertising specialists who make great claims in the daily papers and in this way fail to secure proper treatment and waste precious time. At other times they depend on patent medicines and quite often take no medicine but follow the advice of neighbors and supposed friends who feel fully capable of advising, although ignorant of the disease and its therapeutic needs.

The next difficulty that I would mention is that of retaining the patient under treatment long enough when he has entered upon it. If the diagnosis is made early, the financial strain is not so great; for six to eight months' time will give between 65 and 90 per cent of early cases a chance of recovery. Many early cases, however, make the mistake of thinking that they can cut their treatment short feeling that after a little while they have learned their disease so well that they can go on and get well of their own accord. The result under such circumstances is often, I might say, usually, disastrous; for, after a time the disease again becomes active and the supposed saving of time and money proves to be a genuine loss and often carries the loss of life with it. Of course, if the disease is allowed to advance the time of treatment must necessarily be extended, often requiring many months, the financial strain being correspondingly greater. The difficulty of producing a result is also far greater and the result when obtained much less satisfactory. The patient who is fortunate enough to obtain the best treatment for his disease during the incipient stage should remember when he is chafing under the restraint and

monotony of treatment and is tempted to take matters into his own hands and give up treatment, that every patient who has died of tuberculosis was once in the incipient stage, consequently he must not waste his chances for cure. From the standpoint of economy he must also consider that it will cost him much less to get well of his tuberculosis at this time than it will to die of the disease.

It is perfectly natural that patients should have some difficulty in understanding tuberculosis and its cure. Doctors have the same difficulty. Some of my most difficult patients to handle have been physicians. Physicians and laymen are accustomed to treating and being treated for acute diseases, but not chronic ones. They measure serious curable diseases by such affections as pneumonia and typhoid fever, from which the patient either recovers or of which he dies within a few days or a few weeks. With tuberculosis the conditions are different. It develops slowly. It produces the changes in the tissues slowly, and as a rule whether it heals or destroys the patient, it requires many months to do it. Compare the three weeks' fever of typhoid with the fever of tuberculosis, which may last six months, a year or more. Compare the time necessary for medical care in typhoid with the six or eight months in early tuberculosis or the year or two in most advanced cases. It is difficult to make the patient see this.

While the chronic nature and the time necessary for cure are elements which discourage the patients and cause many of them to weary of the fight and give it up when half or two-thirds won; yet this very slowness is a blessing, for if the changes, which occur in from six months to a year in a lung the seat of an advanced tuberculous process, were to occur in a few days or a few weeks, the patient would be overcome. He would not

be able to adjust himself to the diminution of his breathing space. His heart would fail because of its inability to meet the new strain. Time, however, gives an opportunity for compensation to occur, and, because of it the patient is able to recover with the loss of considerable tissue, and yet be able to enjoy a life of usefulness.

From the pathological standpoint there are many difficulties to overcome, some of which it is almost impossible for the layman to understand. When the bacilli enter the lung tissue they are at once surrounded by the white blood corpuscles, which together with the fixed tissue cells form the tubercle. These cells form a wall about the bacilli, endeavoring to prevent their spread. This wall, however, while primarily a defense, eventually proves to be a great barrier against cure. The bacilli, shut up in this capsule, increase in numbers and pour out their toxins, causing destruction of the cells.\* Another factor which favors necrosis is the fact that no blood vessels enter the tubercle, and inasmuch as cure must come about through the blood, this condition interferes with healing. The blood might contain great numbers of immune bodies and yet be unable to overcome the disease because of its inability to come in contact with the bacilli.

These tubercles at first are very small; so small, that they cannot be seen by the naked eye. Later they form into a dense mass which after a time softens and breaks down, forming cavities. Cavities in the lung vary in size from that of a pin point to that of practically occupying the entire lung. Of course this latter is extreme and the exception. Oftentimes cavities of considerable size dry out and heal; at the same time those who have them must be more patient and recognize the fact that their cure is much more difficult than it would have been

had treatment been undertaken before they had formed.

There are certain difficulties, also, which come to the physician who is attempting to cure tuberculosis. In the first place he must make as accurate a diagnosis as possible of the condition of the lungs, heart, stomach and nervous system, in fact of the entire condition of the patient, and recognize that this varies in different individuals. He must suit his remedies to the patient, remembering that this is a matter of the strictest individualization. He must secure the confidence and cooperation of the patient, which is not always easy to do. He must not only instruct the patient and advise him how to get well, but he must compel him to do it. While patients seemingly want to get well, yet there are very few who would keep up the fight long enough to do so if they were left to their own inclinations; so, it is necessary for the physician to constantly keep the patients interested in doing the things that they should do.

All patients have times when they are not feeling quite as well as usual. The character of the disease is such that it produces an uneven course, the patient feels well for a time and then he feels bad. It is necessary for the physician to be able to satisfy him when things are not going well, to explain to him the cause of the change in symptoms, so that he will understand and be contented and be willing to continue the fight; and, what is even more difficult, he must keep the patient interested at the time when he is getting well, when his entire path is strewn with pitfalls of overconfidence into which it is so easy for him to step. The physician must have his patient's confidence so thoroughly that he will be able to make him realize that this is his dangerous time, and that successful treatment means pa-

tience, perseverance and stick-to-it-iveness until the result is attained.

The great movement of the Sanatoria throughout the world has been for the treatment of early cases; in fact, I have visited sanatorium after sanatorium, erected altogether at a cost of millions of dollars where no patients were received who were in as advanced a conditions as many of my patients are at the time when they are restless and wanting to give up treatment because they think they will go on and get well without further care.

The first difficulty on the part of the patient is to accept the physician's diagnosis and to have confidence enough in him to let him guide the case. It is almost impossible for him to understand the difficulties of cure. Not knowing the pathology, he cannot understand why it takes so long and is so slow of healing and why there should be any doubt at all as to his obtaining a cure. It is difficult for him to be good long enough, for him to co-operate thoroughly and faithfully until he can get well. It is difficult for him to understand why prolonged reading, prolonged thinking, worry and over exertion will retard his progress, lengthen his treatment and sometimes take away his chances of cure. It is difficult for him to be a philosopher and seek contentment, even when he knows it is necessary to cure. In the sanatorium, it is very difficult for him to arrive at that state of mind which will accept the sanatorium as a place for the cure of tuberculosis and not a place for pleasure and entertainment.

It can be seen that both physicians and patients have their difficulties. Each must not only recognize his own but those of the other and aim to lessen them in every way possible. Each must use perseverance and patience, which, together with hearty cooperation will minimize the difficulties



and make the cure easier to bear and in many cases a real pleasure.

The goal of health for the tuberculous is reached only after a long uneven path has been followed; and unless the patient is on constant guard, he may fail to attain it though at its very portals.

### MISTAKES IN DIAGNOSIS.

The profession is under obligation to Richard J. Cabot of Boston for his article, "A Study of Mistaken Diagnoses, Based on an Analysis of 1,000 Autopsies," published in *The Journal of the American Medical Association*, October 15, 1910. The series extends over a period of three years of weekly conferences at the Massachusetts General Hospital with Senior students of Harvard Medical School. Dr. Cabot calls those mistakes which were due to a failure to find existing lesions before death errors of "omission," and diagnoses during life of a lesion not found at autopsy, "errors of commission." The errors of omission were of lesions which in all probability contributed to kill the patient, but were rarely such as would have modified the treatment, if noted.

Errors of omission numbered..602

Errors of commission numbered.....126

Total number of errors.....728  
in 1,535 cases, nearly 50 per cent.

This large number of "mistakes" is not as alarming as the mere numbers indicate, because very many of them were failures to recognize lesions which were secondary, and which, if recognized, would not have modified the treatment.

Again, it is a matter of common observation that many conditions are found at the post-mortem table of which the patient gave neither history or symptoms during the final illness in the hospital.

Under the heading, "**Nervous System**," Dr. Cabot expresses his surprise "at the very large proportion of the cases which during life presented the ordinary features of apoplexy, but which showed after death only an arterioscleratic degeneration of the cerebral arteries, without hemorrhage, embolism, thrombosis or acute softening," and says that his cases resemble those upon which Pal based his theory of vascular exises in cases of an apoplectiform nature without demonstrable gross lesions post mortem.

In the eleven cases of brain tumor reported, the diagnosis of their presence was correctly made, but their exact location was not. This fact is quite in accordance with the usual experience in cases of brain tumor. In other words, cerebral localization is by no means as exact as its enthusiastic advocates hoped it would come to be by this time.

This experience is an interesting confirmation of Starr's statements that it is only in cerebral lesions of the Rolandic area "that the diagnosis is correct, the removal easy and the recovery or improvement is satisfactory" and that success in surgical treatment of these cases may be expected in 5 in 100, or twenty per centum.

E. W.

"This is the excellent foppery of the world, that when we are sick in fortune—often the surfeit of our own behavior—we make guilty of our disasters the sun, the moon, and the stars; as if we were villains by necessity, fools by heavenly compulsion, knaves, thieves and treachers by spherical predominance; drunkards, liars, and adulterers by an enforced obedience of planetary influence, and all that we are evil in, by a divine thrusting on; an admirable evasion of man, to lay his goatish disposition to the charge of a star."—*Shakespeare, King Lear*.

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## EDITORIAL

### LOS ANGELES A. M. A. MEETING

The work of the committee of arrangements goes bravely on.

Dr. H. Bert Ellis, General Chairman, has completed the following committees:

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Every physician in Southern California should remember the difficult position held by Dr. Ellis.

His duties are most arduous. The get-together spirit of our people has become proverbial and now is the time for the medical profession to show that it is imbued with that same evidence of good citizenship.

This meeting means much for the advancement of the standard of rational medicine and is of vast importance in the material development of California.

We have had in Los Angeles many national conventions, but in our opinion the meeting of the A. M. A. will do more for Southern California than any other.

Let us then get together unanimously. Has any doctor a personal grouch? Suppress it. Remember Bert. Ellis cannot do this successfully without your earnest co-operation. There is one thing sure, no physician envies him his position.

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**"THE LEAGUE OF MEDICAL FREEDOM," AND OTHERS.**

The Chinese believe that when a man wants to die, or against his will is, through illness, about to die, he should have no medical attention or other care, and that no one should

under any circumstances interfere with his freedom to do as he pleases. Several years ago the writer of this article saw, in Canton, China, a man lying upon a refuse heap, on the wharf near the steamship landing, dying, as unattended and uncared for as a dog. He had been there several days and the captain of the steamer said that he would remain there until death came to his release.

In the opinion of the average American, polite language is unable to fitly characterize such customs, and such zeal for medical or any other kind of freedom, and yet three recent occurrences in Los Angeles indicate that there are some people among us whose sympathies and efforts are exerted along lines not so very far removed, in essential respects, from the Chinese practice.

Much of the energy of the recent meeting of homeopathic physicians in this city was devoted to condemnation of the Owen bill, and its tendency to advance the minimal standards of qualification for the practice of medicine. In a recent sermon the pastor of the Los Angeles Fellowship attacked the Owen bill and the American Medical Association along similar lines, and a few days later the Los Angeles Express published an editorial in commendation of the action of the homeopaths and of the sermon mentioned.

It is easy to understand why the practitioners of any branch of sectarian medicine oppose any movement which proposes to raise the standards of general and special knowledge re-



quired by the state as preliminary to the actual practice of their profession. It is also easy to understand that the friends of practitioners of sectarian medicine, through personal sympathy with their own doctors and through a failure to understand the essential merits of the controversy oppose any or all state control of the practice of medicine.

Both of these classes of people—sectarian doctors and their friends—need to realize that the movement for state control of the practice of medicine and of public health seeks only to advance the minimal educational standards and that it places all men and women who seek to practice medicine on an absolutely equal footing.

There is no movement anywhere which asks the law to say what a doctor's theories of medicine or his actual practice shall be. The movement for state control seeks only that every practitioner of medicine shall have a minimal knowledge of the facts of modern medical science.

Practitioners of sectarian medicine know, and their friends should know, that almost without exception the great advances in modern scientific medical knowledge have been made by graduates in non-sectarian or regular medicine. It must not be forgotten, and it cannot be too often asserted, that the movement for state control of the practice of medicine and of the public health seeks to put up no bars against the practice of sectarian medicine save moral and educational qualifications.

E. W.

### CHRONIC ARTHRITIS.

There is a very admirable article with the above title in the *Journal of the American Medical Association*, July 17, 1910, under the department *Therapeutics*. It is a review and analysis of an article upon the same subject by Dr. Herman W. Marshall in *Johns Hopkins Hospital Bulletin*, July, 1910.

In the management of patients with this disease, the average physician is at fault in two respects, a failure to work hard enough to secure all available assistance in arrest and cure in early stages, and failure to push remedial measures in the later stages. He is much too prone to say that little can be done for such cases, and far too apt to believe his own statement.

Marshall believes that in these cases joints may be affected by irritants in the blood which have a local chemical action, and trophically in some unexplained reflex manner, traumatism, and by either simple hyperactivity or by disturbed activity of the organs or glands of the body. An instance of the latter action is shown by the onset of arthritis after cessation of ovarian activity. He believes that irritants from the gastro-intestinal tract may be those due to known bacterial agency or to others in which no such agency can be shown to be present. He believes that the resistance of one or more joints may be broken down, to the exclusion of others, even when no local cause can be determined. He believes that when the irritants are from chronic indigestion the joint lesions are hypertrophic, and that when there are atrophic and destructive bone

changes, the digestive organs are not at fault. If this conclusion is sustained it will be of value directly in proportion as it simplifies diagnosis and management.

In the *Journal* article Marshall's therapeutic suggestions are adequately abstracted, here only a reference can be made to them. Each case must be studied systematically and perseveringly until gastro-intestinal conditions and all special organic and glandular functions are as nearly normal as it is possible to make them, and all sources of nerve strain should be removed when possible.

The duty of physicians in these cases cannot be more forcibly stated than it is in the following quotation: "Let it be urged that a physician cannot spend too much time in the study of a patient who shows beginning chronic arthritis, to endeavor to prevent the progress of the disease, and to prevent a life of more or less invalidism. No matter how tedious and no matter how expensive for the patient to be scientifically studied in this condition, it will pay him and his physician for the outlay needed to arrive at the best management of his disease.

E. W.

## EDITORIAL NOTES

Dr. J. M. France is now practicing in San Jacinto.

Dr. W. H. Slabaugh has located in Wilmington, Los Angeles County, Cal.

Dr. F. J. Smith has been appointed Medical Inspector of the city schools of San Diego.

Dr. John E. Adams, formerly of Flagstaff, Arizona, has opened offices in Oakland, California.

At a meeting of the San Bernardino Medical Society, Dr. Hoell Tyler read a paper on typhoid fever.

Dr. D. C. Strong of San Bernardino, who was recently married, is home again after an automobile wedding trip.

Dr. J. E. Bacon, the surgeon of the Copper C<sup>o</sup>., at Miami, Arizona, recently made a brief visit to Los Angeles.

At the recent meeting of the Riverside County Medical Association, Dr. C. Van Zwalenburg read a paper on Surgery.

Dr. B. Sassela of Los Angeles has returned from a visit to his old home in Italy, where he has two daughters in school.

Dr. Robert B. Sweet, a graduate of Rush Medical College, has formed a partnership with Dr. F. L. Rogers at Long Beach.

Dr. W. Jarvis Barlow is spending a month in the East and South, getting the latest ideas in regard to hospitals and sanatoria.

At a meeting of the San Bernardino County Medical Society held recently, Dr. Hamilton Forline read a paper on Vaccination.

The announcement is made of the engagement of Dr. Samuel J. Mattison of Pasadena to Miss Ruth Brooks of the same city.

Dr. Randolph Hill, who has been located at the Hotel Alexandria, has moved into his new home at No. 2749 Kenwood Ave., Los Angeles.

Dr. L. P. Kaull of Los Angeles spent a very pleasant week, early in November, hunting deer and smaller game in the Mogollon Mountains, Arizona.

Dr. James P. Vye, formerly of Courtland, has removed to Ray, Arizona, where he has charge of the hospital of the Ray Consolidated Mining Company.

Dr. W. W. Beckett of Los Angeles was recently the guest of honor of the physicians of Redlands and delivered an address recounting his observations while in the hospitals of Europe.

A traveler in Switzerland recently visited the quaint cemetery of a mountain village and found that during the last hundred and fifty years no person had lived to be 68 years of age.

Dr. C. P. Thomas and Dr. M. L. Loomis are now associates in the practice of surgery, with offices in the Consolidated Realty Building, corner of Sixth and Hill Streets, Los Angeles.

Dr. C. C. Haskell, of the research department of the Lilly laboratories, has returned to his office in Indianapolis, after an absence of about three months. Dr. Haskell spent the summer studying infants' diseases in the hospitals of New York City.

Arrangements are being completed for the organization of County Medical Societies in Coconino County and in Gila County, Arizona. Both of these societies will hold their first meeting during the visit of Dr. J. N. McCormack to the Territory.

During the last twelve months 411 persons have been committed for insanity by the Superior Court of Los Angeles County. \* \* \* The records for each year show an increase in cases in the winter months and a lessening for the summer months.

Dr J. R. Medlock of Santa Ana, Cal., has returned from four months' trav-

eling in Europe. While he devoted a great deal of time to the rest of which he was greatly in need, he also spent some time making observations in the great hospitals in the European cities.

J. B. Lippincott & Co., the Philadelphia publishers, announce that the second large edition of Paul Cohnheim's work which was edited and translated by Dr. Dudiey Fulton of Los Angeles is now almost exhausted and that they are making arrangements for a new edition.

Dr. John C. King, President California State Medical Society, has a small sanatorium at Banning, which he keeps open the year round. We all know Dr. King and that he makes no pretensions, but simply goes ahead and does his work thoroughly and conscientiously.

The Southern California Homeopathic Medical Society, The Los Angeles County Electric Medical Society and the Naturapathic Society have all adopted red-hot resolutions against the proposition for a National Bureau of Health. The Chiropodists are also said to be very indignant.

The old reliable medical publishing house of P. Blakiston's Son & Co. have erected a six-story warehouse in the rear of their office building, 1012 Walnut St., Philadelphia. This new building is of reinforced concrete construction, absolutely fire proof, with all the modern improvements.

Dr. Chas. C. Browning has returned from a most interesting trip abroad. He is now located in Suite 1004, Walter P. Story Bldg. Dr. Browning limits his practice to diseases of the Throat and Lungs and Tubercular conditions. He announces that he has severed his relations with the Pottinger Sanatorium.

The Elizabeth Bard Memorial Hospital of Ventura has finally been put on a permanent foundation. A corpor-



ation has been formed of benevolent citizens, with an annual fee of \$5.00 and a life membership fee of \$100.00. In addition to this, Senator Bard voluntarily gives \$100.00 per month for a year in order to help meet any deficit.

Only a few copies of Dr. Kress' *Medical History of Southern California* had been delivered when the *Times'* building, where the book was printed and stored, was destroyed by dynamite and the resulting fire. Those who were fortunate enough to receive their copies have indeed a limited edition. The scarcity of the book as well as its intrinsic value will cause it to be sought for by all Pacific Coast book lovers.

The directors of the Santa Ana Hospital Association have organized and elected the following officers: President, Dr. C. D. Ball; vice-president, Dr. J. M. Raugh; secretary, Dr. H. S. Gordon; treasurer, D. H. Thomas; member of the board of control, Dr. John Wehrly. The other members of the board are, Drs. J. L. Dryer, J. P. Boyd, J. M. Burlew, J. R. Medlock and Dr. Willela Waffle and Mr. T. H. Harris.

Mrs. W. S. James, of 521 Shatto Place, Los Angeles, is actively leading a movement to establish a hospital for epileptics in Southern California. At a meeting held recently at the residence of Mrs. James, Dr. H. G. Brainard was elected President of the movement, and he appointed as the executive committee, Judge Curtis D. Wilbur, Dr. Charles Lewis Allen, Wm. Swain James, Esq., Mrs. Oliver P. Clark, and Mrs. Geo. I. Kyte.

The Western Section of the American Laryngological Rhinological and Otological Society will hold its annual meeting in Los Angeles December 8th. As all members of this society

reside here and are also members of the Southern California Medical Society, it has been arranged to hold its session also, Ear, Nose and Throat section of that society. Dr. Wm. H. Dudley is chairman of the Western Section, and is arranging an excellent program.

We are glad to call attention to the modest advertisement of the Whitwell Hospital and Sanatorium in Tucson, Arizona. We have visited this institution, and it is a delight to see an establishment of such modern and permanent lines located so admirably. Dr. Hobart P. Shattuck who has had charge of this hospital for the last three years, is making for it an enviable reputation. The profession can thoroughly depend upon him.

At the recent triennial convention of the Episcopal Church in Cincinnati, the following resolution was adopted:

"That a committee, to consist of two bishops, two presbyters, and two laymen, be appointed to prepare and report an office for the unction of the sick on the lines of the scriptural and Catholic usage, avoiding any appearance of a sacramental rite immediately preceding death."

Reverend Lucius Waterman of Hanover, New Hampshire, who offered the resolution, said:

"If the Lord Jesus Christ did heal the sick in a manner which I may describe as supernatural, He can do the same in the twentieth century. If men allow themselves to be prevented from asking God for a miracle, then God is not likely to grant it to them. Medical science has its place, but when its limits have been reached, the limits of the power of God have not been reached."

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John B. Huber, in the *Medical Times*, states that the room temperature in the sick room in lobar pneumonia is set at 65 degrees, and 70 degrees for children; but the principal point here is to have it well ventilated. We do not fear cold air for the pneumonia patient; this phase of the treatment has indeed become quite revolutionized.

## BOOK REVIEWS

**A MANUAL OF HYGIENE AND SANITATION.** By Seneca Egbert, M.D., Dean and Professor of Hygiene in the Medico-Chirurgical College, Philadelphia. New (5th) edition, thoroughly revised. 12mo, 508 pages, with 97 illustrations. Cloth, \$2.25, net. Lea & Febiger, Philadelphia and New York, 1910.

The readers of the Southern California Practitioner are well acquainted with this volume. The sections, Immuns, Therapy, Ventilation and Food, brought down to date as they are in this edition, are well worth another reading by every practitioner.

**OBSTETRICAL NURSING FOR NURSES AND STUDENTS.** By Henry Enos Tuley, A.M., M.D., Professor of Obstetrics, Medical Department University of Louisville; Visiting Obstetrician and Lecturer on Obstetrics to Training School for Nurses, John N. Norton Memorial Infirmary and Louisville City Hospital; Member Sloane Maternity Hospital Alumni; Ex-Secretary and Chairman Section on Diseases of Children, American Medical Association; Secretary Mississippi Valley Medical Association, etc. With 73 illustrations. Second edition, revised and rewritten. John P. Morton & Company, Publishers, Louisville, Ky., 1910. Price, \$1.50.

Dr. Tuley has the happy talent of putting important matter in graphic, readable form.

The nurse is the valued co-adjutor of the physician, and every spoken or written word that makes the nurse more fit is a boon to her chief.

**LIPPINCOTT'S NEW MEDICAL DICTIONARY.** A vocabulary of the terms used in medicine and the allied sciences, with their pronunciation, etymology and signification, including much collateral information of a descriptive and encyclopaedic character, by Henry W. Cattell, A.M. (Laf.), M.D. (U. of P.), Editor of International Clinics, Fellow of the College of Physicians of Philadelphia, etc. Freely illustrated with figures in the text. Flexible cover, leather, 1108 pages. Philadelphia & London. J. B. Lippincott Company.

The advantage of this dictionary is that in a single volume one is able to get quite a thorough and accurate perspective and proportion of up-to-date medical terms and knowledge. The large number of excellent illustrations add greatly to the value of the volume and the book itself shows evidence everywhere of painstaking editorial

thought and supervision. The type is good and so arranged as to allow the reader an opportunity to find that which he is seeking without much effort or trouble, which is a matter of rather major importance in the make-up of a dictionary. All of the newer knowledge concerning tropical diseases, etc., seems to have been included. The binding of the book is excellent and the volume of a size easily handled. Those who wish an up-to-date, handy, comprehensive and yet to-the-point dictionary, will make no mistake when they purchase this volume.

**INTERNATIONAL CLINICS**, a quarterly of illustrated clinical lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Paediatrics, Obstetrics, Gynaecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otolaryngology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners, by leading members of the medical profession throughout the world, edited by Henry W. Cattell, A.M., M.D., Philadelphia, U. S. A., with the collaboration of Wm. Osler, M.D., Oxford; John H. Musser, M.D., Philadelphia; A. McPhedran, M.D., Toronto; Frank Billings, M.D., Chicago; Chas. H. Mayo, M.D., Rochester; Thos. H. Rotch, M.D., Boston; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Richard Kretz, M.D., Vienna; with regular correspondents in Montreal, London, Paris, Berlin, Vienna, Leipsic, Brussels and Carlsbad. Volume III. Twentieth Series, 1910. Philadelphia and London, J. B. Lippincott Co., 1910.

Under Ehrlich's Diazo Reaction in Chronic Tuberculosis, Levin of Colorado brings attention to the fact that while the Diazo reaction has no diagnostic value in tuberculosis, it has a prognostic value of considerable importance.

He says, that of "the hundreds of tuberculous patients in all stages of the disease who had passed in and out of the doors of the Jewish Consumptive's Relief Society's Sanatorium, only forty showed a distinct, positive diazo reaction in their urines. Of these, thirty-one died within the walls of the sanatorium. Of the remaining

nine, eight left the sanatorium "unimproved," which is another way of saying that they left in a worse condition than when they entered. Only one of the forty left the sanatorium improved."

Milton K. Meyers, of Philadelphia, presents an article on "Hydrophobia," which is of especial interest. On page 159 under Treatment, occurs the following: "The treatment of hydrophobia is prophylactic in a double sense. In the first place, dogs can be prevented from developing and communicating the disease by a system of proper muzzling. England has practically rid itself of the disease by the rigid enforcement of laws providing for the proper muzzling of dogs."

P. Samuel Stout of the University of Pennsylvania, speaking of fracture of the femur in the new-born, emphasizes the value of Buck's continuous vertical extension, and quotes a case where a plaster cast had been applied for two weeks unsatisfactorily, perfect cure resulting when the vertical extension was used. His conclusions are, "In complete fracture of femur in the new-born it is absurd to depend upon a plaster cast alone." "If fracture is not observed at once, a few days do not seem to interfere with the result if proper extension is then applied."

John B. Roberts has an exceedingly interesting and valuable article on "The Physician's Part in the War against Venereal Diseases." The following two paragraphs quoted from his paper is sufficient to show the manner in which the subject is presented by him:

"The economic importance of stamping out the social evil,—the infection with the diplococcus of gonorrhoea and the infection with the spirochaete of syphilis,—is even of greater importance than eradication of tuberculosis from the world's inhabitants. It has been stated that the number of per-

sons infected with venereal diseases is five times that of those infected with tuberculosis. The same authority believes that every year there are about 400,000 young men in the United States who contract some form of venereal disease.

"Ignorance of the risk to their own health, happiness and motherhood permits maids to accept husbands from the infected men of a community. Social indifference has condoned under the title of 'wild oats' the sexual vices of male adolescents. It is the duty of doctors to displace this state of ignorance with a knowledge of the physiology of sex, of the need of masculine chastity and of the danger of incontinence. The knowledge that a man and a woman can create another human being at will raises them in a sense to companionship with the Almighty Creator himself. Is not this thought enough to make one tremble to dally with the sexual function and thus pervert or destroy it?"

The last article in the present volume is entitled, "A Medical Homecoming Week," presented by John G. Clark, of the University of Pennsylvania. The chapter treats the following subjects by short articles on each: Diseases of Children; Gynaecological Clinic; Iodin in skin disinfection; Curettage for diagnostic purposes; Results and After-care in plastic operations; Watkin's operation for Prolapsus Uteri; Dysmenorrhoea; Revised Treatment of pelvic inflammatory lesions and several other interesting subjects.

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AN EPITOME OF HYGIENE AND PUBLIC HEALTH. By George M. Price, M.D., formerly Inspector New York State Tenement Commission, Medical Sanitary Inspector, New York Department of Health. 12 mo. 255 pages. Cloth, \$1.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910. (Lea's Series of Medical Epitomes. Edited by Victor C. Pedersen, M.D., New York.)

Dr. Price is already well known as the author of several works on the subject and as a sanitary expert for



the City of New York during ten years. He is therefore fully qualified to know his subject in every aspect and to perform the always difficult task of condensation with good judgment.

THE PRACTICAL MEDICAL SERIES, comprising ten volumes on the year's progress in Medicine and Surgery, under the general editorial charge of Gustavus P. Head, M.D., Professor of laryngology and rhinology, Chicago Post-graduate Medical School. Volume II. General Surgery, edited by John B. Murphy, A.M., M.D., LL.D., Professor of surgery in the Northwestern University, attending surgeon and chief of staff of Mercy Hospital, Wesley Hospital, St. Joseph's Hospital and Columbus Hospital, consulting surgeon to Cook County Hospital and Alexian Brothers Hospital, Chicago, Illinois. Series 1910. Chicago. The Year Book Publishers, 40 Dearborn At. Price of this volume, \$2.00. Price of the series of ten volumes, \$10.00.

Volume II.—While Murphy in the past has unqualifiedly condemned spinal analgesia, Jonnesco's method comes in for considerable consideration. Bier is quoted as saying: "The method of general spinal anaesthesia described by Jonnesco at the International Surgical Congress should be rejected." Rehn is quoted as observing that "animal experiments show the great danger of injections made above the lumbar region such as recommended as Jonnesco."

Under Operative Technic, Pottenger's light touch palpation is given full description.

On page 231, under "The Thyroid and Parathyroids," in speaking of hypothyroidism occurs this paragraph: "In choosing a method to fit the condition, in those patients seen in the early stage of the disease, in whom thyroidectomy is not justifiable, the ligation of the superior thyroid vessels on both sides seems to bring about a rapid cure. This method is also free from the possible risks of hypothyroidism. It is successful in most instances and can be followed later by removal of a portion of the gland, if a recurrence should make it necessary.

Volume IV of the same series on

"Gynecology" is edited by E. C. Dudley and C. von Bachellet.

This volume gives a concise review of the work done in gynecology during the past year, and like all other works of Dudley's, is very commendable.

On page 89, under "Actinomycosis of the Appendages," occurs the following: C. Wagner reports a case of infection of the appendages by actinomycosis in a young woman of 19, who had been sick with pain in the abdomen and various dyspeptic and pelvic symptoms for several years. A mass could be felt in the pelvis, and on opening the abdomen, the appendages were found diseased and removed under the diagnosis of pyosalpinx which was found on careful examination of the pus to be due to actinomycosis. Recovery took place under the administration of large doses of potassium iodid. Wagner reaches the following conclusions:

1. Actinomycosis of the uterine appendages is probably always a secondary affection.

2. The infection takes place from the gastro-intestinal tract and may be most frequently from the appendix.

3. The mode of secondary infection is by infiltration, penetration, continuity and contiguity.

4. Actinomycosis of the ovary and tube in long-lasting cases is surrounded by dense connective tissue formation, which may be led to erroneous diagnosis of different kinds of tumors of hard consistency.

5. The gross macroscopic and microscopic picture resembles that of tuberculosis in many cases.

6. Bollinger's desideratum for diagnosis of actinomycosis, namely that corpora flava must be present, is untenable at the present time.

7. Repeated bacteriologic examinations, and sometimes long and tedious ones of the same specimens, must be

made to insure a correct interpretation of suspicious pathologic material.

8. Inoculation of an animal with pure cultures is not attended with success.

9. Only the injection of pus containing actinomycetes or the ingestion of material on which actinomycetes have grown, will prove successful in the production of actinomycosis in the animal.

These volumes are of inestimable value as by a limited amount of reading one can easily gain at least a smattering of the advances made in surgery during the past year. They serve a purpose in medicine and surgery of the present day that no medical man can afford to overlook. The type and general make-up of the book is much better than many of the previous volumes.

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## CALIFORNIA HOSPITAL ALUMNI NOTES

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Miss Lillian Hilton, who has been at Santa Monica for some time, has returned to this city. She has been putting in a great deal of work as chairman of the Nightingale meeting.

Miss Hilda Humphreys has gone to San Francisco and vicinity for two weeks.

Miss Weber, Class '08, who has been nursing in Santa Barbara for some time, is just recovering from a severe attack of typhoid fever which she contracted while nursing a patient.

Miss Mary Walters, '05, who has been taking a course at the Royal Victoria Hospital in Montreal Canada, has returned to this city. She had been gone over a year and visited many points of interest in England.

Mrs. Mary Culbertson, '10, has returned to this city after a three months' vacation in Santa Barbara.

Miss Maud Hammett, '10, who has been relieving Miss Edith Thomas,

Morenci, Arizona, while she was having a vacation, was thrown from a horse and received severe scalp wounds and other slight bruises. We are all glad to know that she is getting along very nicely.

Miss Metcalf, '10, has accepted the position as assistant head nurse in the operating room at the California Hospital.

Miss Hagar, who has been night superintendent of the California Hospital, resigned her position, and will be succeeded by Miss B. Anderson, post graduate '10, California Hospital. Miss Hagar will not be Miss Hagar very much longer.

Miss Adelaide Hawley, '05, for the past few years has been taking post graduate work in different hospitals in New York City, London and Germany. She now has charge of a hospital in Southern India, and has adopted an eight-month-old Indian babe.

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## NEW AUTO ROAD TO IDYLLWILD.

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BY HUGH McDOWELL.

Within the past month a new road has been completed which opens to automobiles a very attractive route which has not been heretofore available to Southern California motorists. At an expense of between \$50,000 and \$60,000 the Supervisors of Riverside

County have just finished the construction of a good road from Banning to Idyllwild. The altitude of Idyllwild and the beautiful Strawberry Valley in which it lies is so great—almost exactly one mile—that they have been difficult of access on account of the

steep grades on the old route from San Jacinto and Hemet.

But the new road overcomes this difficulty, and any machine of fair power can now reach the resort by this route. A new road has also been recently constructed between Hemet and San Jacinto and Idyllwild, on which the grades are not so heavy as those on the old stage road heretofore in use. It is advisable, however, for those who wish to make the trip to go by the way of Banning rather than via the new grade from San Jacinto.

The distance from Banning to Idyllwild, as I measured it a few days ago with a Warner instrument, is 30.5 miles, and nowhere did my gradometer show a grade of any considerable length of more than 10 per cent. In two or three places there are short pitches where the grade is 12 to 14 per cent, but at no time did we encounter a grade as high as 15 per cent.

On the new route down to Hemet and San Jacinto, however, there are places where the grade runs as high as 18 per cent or more for short distances. On the Banning road there are frequent stretches of a considerable distance that are comparatively level and can be made easily on the high gear, so that the entire distance can be negotiated with comparative ease. The roadbed is generally quite hard and smooth, though there are some short stretches where there is a little sand. In a few places a short turn at the foot of a grade makes it difficult to obtain momentum, but the Riverside County Supervisors promise to improve the road in this respect.

It might be well for any one having a machine with a tendency to overheat to take an extra supply of water from Banning, as there is at present no water available on the road for a distance of about fourteen miles from

Banning, the latter ten miles of which is up a pretty steady grade. As there is but little shade the first part of the way, it would be well for parties intending to make the trip to plan to stay over night at Beaumont, or Banning, and start up the grade in the morning, before the sun reaches that side of the mountains. This will not only give the tourist the advantage of the cooler weather in the morning, but the view of the valley and the mountains opposite will be much clearer than during the afternoon when one must look toward the sun.

At a point seventeen miles from Banning a fine stream of cold water issues from a rock at the side of the road; this is a good resting place. Thus far there is comparatively little shade, but after this the road is to a considerable extent shaded by fine oaks and pines. A glimpse of the latter portion of the road may be seen in the cover picture of this issue of *Touring\* Topics*. From numerous points views that are in many respects unsurpassed in Southern California may be obtained, and those who make the trip will feel well repaid for the effort. The hotel at Idyllwild is now closed for the season, but good sleeping accommodations and plain, well cooked mountain meals are provided the year round.

For the reason noted in reference to the Banning route it is desirable to descend the new grade to San Jacinto and Hemet during the early part of the day. There again a marvelous view of mountains and valleys may be obtained. Soon after starting to descend this grade a wide-spreading panorama of mountains, valleys, rivers, canyons and towns lie before the eyes, unfolding to a greater extent as one descends, until at a point about half way down the grade no less than a dozen ranges of mountains and foothills stretch in front to the southwest,

\*See frontispiece this issue of the Southern California Practitioner.



while numerous other ridges bound the vision in other directions. The lovely San Jacinto Valley lies in the centerground, with the San Jacinto River winding like a dazzling silver thread through it, fringed with the brilliant green of cottonwoods and sycamores.

The distance from Idyllwild to San Jacinto, as we measured it, is 21.1 miles. The foot of the grade, however, is reached at exactly nine miles from Idyllwild. From the foot to San Jacinto the road runs through the beautiful valley and is in good condition. The altitude of Idyllwild is 5260 feet, and that of the government bench mark at the foot of the grade is 2062, so it will be seen that an ascent of 3200 feet is made in the nine miles by this route. The roadbed is good, but necessarily it is rather steep, and as the grade is quite uniform it will be found difficult to ascend on the high gear with any except very high-powered machines. Most, however, will take the greater part of it on the intermediate. There are scarcely any stretches where the road is level or where the grade is so slight that any distance can be run on the high. On this account it is better to go, as I have said by the Banning road, on which there are stretches of comparatively level road which allow one's engine to cool. During the whole nine miles of the San Jacinto grade there are only one or two places where water can be obtained, and the grade is practically continuous. Coming down you can throw in the low gear, shut off the power and coast most of the way.

Under the present conditions of the roads, the route which we took is probably the best. We went by the Foothill boulevard as far as Citrus Avenue (at the end of the main street through Azusa), where we turned to the right and then took the first road to the left, following this for about a

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NEW YORK CITY

mile, then to the right for about two miles, then to the left following the main road through San Dimas and Lordsburg to Claremont, and thence over the Foothill Boulevard to Rialto, straight through Rialto about two miles, then to the left into Colton. Taking the Redlands road out of Colton, turn off to the right to and past Loma Linda, about a mile, then to the left two miles to Bryn Mawr, then up the San Timoteo Canyon road, following this to Banning. The distance from Los Angeles to Banning is about eighty-five miles.

Returning, we came by way of San Jacinto and the San Jacinto and Redlands road, past San Jacinto (Relief) Hot Springs and Eden Hot Springs, thence through Moreno by way of Cottonwood Avenue to the Box Springs and Perris road, and thence

into Riverside. This route is in fairly good condition, although the Box Springs grade is somewhat cut up. From San Jacinto to Riverside there is little choice whether one goes by way of Moreno or through Perris. The distance from San Jacinto to Los Angeles is about 100 miles.

From Riverside we returned by the way of Wineville, taking the road to Etiwanda for about a mile or a mile and a half, then turning to the left and following the main road through to Ontario, thence to Pomona and home by way of Lordsburg, San Dimas and Azusa.

In going we diverged from the Foothill Boulevard beyond Azusa in order to avoid the stretch of road which is now in bad condition in the vicinity of Glendora. We also avoided a stretch of road recently plowed up near Covina by taking the route mentioned between Azusa and San Dimas.

Of the road generally it may be said that it is in good condition for this season of the year, when most roads are considerably cut up. In no direction out of the city is there any other stretch of road of so great a length in such good condition as that between here and Banning. We made the entire distance with my two-cylinder Tourist on the high gear, without having at any time to shift on account of heavy roads. A few rough places were encountered, but only for short stretches. A portion of the road between Wineville and Ontario had recently been oiled, and for some distance was heavy. This, however, will probably soon be in good condition, and even now is preferable to the route from Wineville via Etiwanda and Cucamonga.—*Touring Topics, October, 1910.*

Thomas, of the out-patient department University Hospital, Philadelphia, thinks that gelatin-glycerin-zinc oxide paste, known as the Unna dress-

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*Sample and literature on application.*

ing, can be used with even greater success in the treatment of leg ulcers than for skin lesions, for which it was originally devised. In his article on the above subject in the *Bulletin of the University of Pennsylvania* he says:

"In conclusion, I wish to advocate emphatically the following claims for the gelatin-glycerin-zinc oxide paste dressing:

"1. It is the most practical and economical method of treatment for leg ulcer of which present-day surgery can boast.

"2. It markedly conserves the time of the poor patient of the laboring class.

"3. It is an important labor-saving device for the surgeon.

"4. It greatly lessens the period of convalescence over that of any other known treatment."

# SOUTHERN CALIFORNIA PRACTITIONER

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Editor,

DR. WALTER LINDLEY.

Associate Editors,

DR. GEORGE H. KRESS, DR. JOHN W. FLINN, DR. ELBERT WING, DR. H. BERT. ELLIS,  
DR. GEO. L. COLE, DR. W. JARVIS BARLOW and DR. F. M. POTTENGER.

## STRABISMUS IN INFANCY.\*

BY FRED BAKER, M.D., SAN DIEGO, CALIFORNIA.

All doctors are neglectful of a part at least of their full duty to their patrons and the public. Perhaps in no cases does this neglect finally yield so large a percentage of suffering to the individual in after life as in our failure to notify parents of the risks they take in not securing the best conditions for their growing children. This often comes from the delicacy which we all feel about advising something which is not well understood, and which lends itself to the suspicion that we are attempting a graft. If one says this child should be operated for Adenoids, to a parent who scarcely knows what Adenoids are, and adds, I will do the operation for the small sum of ——— dollars, it looks just a little fishy to the man on the street.

There is, however, another almost equally important piece of advice which oculists will agree is too often neglected, which puts the proposition up to the parents without a chance of the doctor profiting by it. Here there is no excuse of delicacy, but only one of carelessness or ignorance.

I refer to the management of crossed eyes in infancy.

No truth is more universally true in physiology than that an unused organ will deteriorate. It is questionable if it is generally known to what extent an unused eye will do so.

Nearly all very young babies cross their eyes more or less before they acquire the power of co-ordination of the ocular motor muscles. This condition is generally quite transient, as the motor control comes quickly, and this fact has led to the belief that babies outgrow strabismus. It must be clearly held in mind that this is not strabismus, but a perfectly normal condition of development.

It will be found that a certain small percentage of the babies never acquire the power of paralleling the visual axes. This constitutes a true strabismus and needs careful attention.

Strabismus is always alternating at first, unless one eye is already markedly defective. That is, either eye will at times be the fixating eye while the opposite will wander out of the

\*Read before the San Diego Convention, November 3, 1910.



line of vision. If the vision of both eyes is equal the fixating eye will be a matter of chance. This condition of alternating squint may persist through life, but this is extremely rare. In such cases it will be found that the vision of both eyes is equal, and in such cases no harm follows neglect.

After a time it nearly always happens that one eye becomes the fixating one on all or nearly all occasions. This happens because one eye sees better than the other, or, because of some difference in the refraction of the eyes which makes it easier for the eye which becomes the permanently straight one to do its work. As long as either eye fixes the object, each has its fair share of use and no degeneration takes place. As soon as one eye begins to fixate more than the other, it soon reaches a point where the usually crossed eye almost never looks straight at any object. As a result, the image of the object seen falls well outside of the center of distinct vision, so that the impression formed is a very indistinct one. As the next inevitable step the brain suppresses this indistinct image, taking no notice of it whatever, thus leaving the clear-cut image formed on the retina of the fixating eye. At once there follows a period of rapid deterioration of the non-fixating eye. Without statistics I should judge that over ninety per cent. of all cases of squint reporting to oculists are cases where alternation of the squint has been entirely lost, and in these cases the vision of the crossed eye has run down to a point varying from a fifth of normal to an eye which can only discern large objects. As this result can almost always be obviated with proper care, it reflects greatly on the physician who fails to warn parents and to give careful instruction how to handle the case. As the subsequent care entails a large

amount of trouble, these cases are frequently neglected by parents. However if we have been explicit, our responsibility ceases.

It is the experience of all oculists that nearly all cases of strabismus operated in infancy result unsatisfactorily. The proper handling of a case needs intelligent aid on the part of the patient at the time of the operation, and after the operation, the exercising of the eyes to produce a perfect balance. On this account I do not believe the operation should be undertaken before the age of seven at earliest, a later date being preferable. The exception to this rule is with people who live at a distance from an oculist and who are liable to neglect an operation at a later time. In such cases an early operation may be justifiable. Those cases operated before the patient can give intelligent help are dependent for their final results on certain objective tests which are most indefinite. As a result the conservative operator gets an insufficient effect, and the radical operator gets a beautiful result, which in a few years goes on to show an overeffect that the operator will be thoroughly ashamed of, if, by great good fortune, the case does not pass to other climes. The bad result does not usually show for several years, but it is almost sure to come. So it will commend itself to all conservative oculists to use a method which carries the child safely to years of discretion, when an operation can be done with a splendid assurance of a lasting result which will always gladden the heart.

To get this result, as soon as one eye shows a tendency to be the fixating one on most occasions, this good eye should be bandaged or covered in some efficient manner for at least an hour each day, in order to force the non-fixating eye to do an hour of honest work. This should be continued for about two years, after which time experience has shown that there will

be only slight, if any, deterioration, if indeed the treatment does not produce a true alternating squint. As a matter of fact a year nearly assures the retention of perfect vision through life.

As against this showing, I recall two cases where men lost the good eye late in life and found themselves with only vision enough to find their way about with ease and unable to do anything but the coarsest manual labor. It has been taught for many years that it is impossible to educate the deteriorated eye to any marked measure of improvement. This is surely an error, although the amount of possible improvement from use and exercise is as yet in dispute. It is safe to say that an eye which has failed from non-use dating from early infancy cannot be brought up to any great degree of efficiency. Therefore if we fail to advise parents fully in such a case, we must shoulder the full responsibility for a very serious and nearly irremediable condition.

My own experience with these cases has not been large. The oculist does not often see them until it is too late to benefit by the bandaging process, but I have had the satisfaction of watching four cases through to ages ranging from seven to twenty-five years, all with equal vision in both

eyes, and three with normal vision in each eye.

These cases almost always fall under the observation of the general practitioners and it is to them that I would especially appeal. Outside of my own cases I have seen no case that had been treated by bandaging. Worse than that, within the past ten years I have seen four cases with one eye badly degenerated where the parents were advised to let the cases alone, as the child would outgrow the condition. These cases and others which are coming daily to the oculists for advice all over the country are a sad commentary on scientific medicine; that in the Twentieth Century such a condition should obtain, even among the least informed of our profession, on a subject about which there is absolutely no controversy. Of course a small proportion of all cases are not seen by a physician in time to do any good, but surely these cases are rare except in thinly populated districts. So in conclusion I wish to say that in my opinion the physician who sees a case of commencing strabismus without giving the parents explanations of the dangers and full directions how to prevent the deterioration of the crossed eye is guilty of a sin, which, while not punishable, is really as grave as malpractice. 1145 Sixth St.

## STONE IN THE BLADDER AND URETHRA IN CHILDREN— REPORT OF CASES.\*

BY LEWIS B. MORTON, M.D., PASADENA, CALIFORNIA.

I have to report five cases of urinary calculus in children, which have come under the surgical service at the Selwyn Emmett Graves Memorial Dispensary of the Los Angeles Medical Department of the University of California during the past two years. Two of the cases were urethral; three vesical.

Although urinary stone as a disease has been known and studied for hun-

dreds of years—its etiology is still very obscure.

We differentiate two types of stone: Primary, which are formed in an acid urine without previous inflammation; secondary, which are formed in alkaline urine as a result of an inflammation. Primary stones usually descend from the kidney. Secondary stones are formed in the bladder.

Fundamentally the determining

\*Read before the Faculty Club of the Los Angeles Department of the College of Medicine of the University of California, November 8, 1910.

cause of stone is the bringing together of urinary salts and a colloid substance, since crystalloids are precipitated from solution in the presence of a colloid. It can be readily understood how this combination is brought about in the formation of secondary stone, since cystitis, always its forerunner, furnishes mucus, pus, or blood to act as a colloid, and excess of phosphates or carbonates to act as the crystalloid. In primary stone, which is the usual type in children, just what causes bring these two elements together is not definitely known. The most common primary stones are those composed of uric acid, urates, or calcium oxalate. These salts are normal constituents of the urine and to be precipitated in the urinary tract must be present in excess, there being either an increase in the amount of the salts excreted, or a decrease in the power of the urine for holding them in solution. Assuming that an excess of uric acid is due to faulty oxidation of the products of metabolism, excessive or improper feeding with too large a percentage of solids, and nitrogenous elements in the diet, poor digestion and deficient exercise may be cited as causes of uric acid stone. We know that urate stones are most common in overfed, underexercised individuals, who are excessive meat eaters, and that oxalate stone is most common in poor children whose diet is too largely vegetable.

Excess of uric acid crystals in the urinary tract is extremely common among children, and probably always present in new-born infants. A uric acid calculus as large as a pea has been found in the bladder of a still-born male infant. Stone is twenty times as common in male as in female children, doubtless because the crystals can escape more readily from the female urethra. If the crystals are large enough to cause traumatism, mu-

cus or muco-pus will soon be present to furnish the colloid and the nucleus is formed. With the nucleus acting as a foreign body and the urine loaded with the excess of salts, new crystals are deposited with greater or less rapidity. These facts may serve to explain the preponderance of uric acid stones in children.

Among other etiologic factors may be mentioned heredity, race and climate. As to heredity it has been noticed that certain families of gouty or rheumatic diathesis are subject to the disease through successive generations.

As to race—whites are more affected than negroes. Stone is extremely common in India, Egypt, Russia, and Asia Minor, and comparatively rare in North America. On the whole diet and habits of living seem of much more importance in the etiology than race, climate or any other factor.

Our cases were all in children in poor circumstances, whose diet and habits of living were unquestionably not of the best. One case was distinctly rachitic. Three were Russian children, two Mexican. Two of the Russians and one of the Mexicans came from the same province in Lower California, but I could not find that stone was especially prevalent there. In no case was heredity a factor.

Urethral stones are simply vesical stones which have started to pass and have become lodged at some point along the urethra, usually the prostatic, bulbous, or the navicular portion. They are rarely formed *in situ*.

The symptoms and diagnosis need but brief mention. There are three cardinal symptoms: First, pain; second, disturbances of micturation; third, changes in urine.

Pain.—The pain is usually not constant, but brought on by moving about, as running, jumping or riding over a rough road. One of our cases was pe-



culiar in that the pain was worse at night. The location of the pain is in the glans, along the urethra, or in the perineum. Male children have a tendency to pull on the penis during the attacks, and the prepuce becomes pendulous. These cases may be, and often are, mistaken for irritation due to phimosis. Three of our five cases had come to the clinic for circumcision.

Disturbances of micturition are frequent urination and occasional blocking of the stream. Blocking of the stream is usually only temporary, but the stone may become so lodged that retention is almost complete. One of the urethral cases had had no voluntary passage for three days before admission, the urine exuding by dribbling; and in one of the vesical cases catheterization had been necessary for nearly two weeks.

The pain and difficulty in urinating caused the child to strain, so that hernia and prolapse of the rectum are quite common in these children. We found an umbilical hernia in one case.

Changes in urine.—The urine in these cases is acid, usually of high specific gravity, dark colored and smoky. It may contain albumen, casts, epithelium, pus and blood. The passage of a greater or less amount of fresh blood at the close of the act of urination is a very characteristic symptom, but is not often present. Casper lays great stress on the demonstration of occult blood, stating that he almost never fails to find blood cells in the urinary sediment of stone cases. Blood cells were present in the sediment of all three of our bladder cases.

A diagnosis on symptoms alone is attended with extreme difficulty, in that any or all of the above symptoms may be present in cystitis, irritation from phimosis, oxyuriasis or lumbricoids in the rectum, and pyelitis.

Other methods of examination must be used, and of these the most important are sounding, cystoscopy, the X-Ray, and palpation per rectum. In none of our cases was use made of the cystoscope or radiograph. First, because the stone could be felt both with the sound and the finger per rectum. Second, because either method in a child usually necessitates an anaesthetic. In doubtful cases or in adults they are extremely valuable aids. Casper depends almost entirely on the cystoscope; Keyes, on the other hand, thinks very little of the cystoscope, but likes the sound. In sounding, the sharper curve of the child's urethra must be borne in mind. We found useful a uterine probe bent to the proper curve.

Case I.—A Russian boy, three years of age; his family history was negative and he had had no previous illness. For three days before admission he had retention with dribbling of urine. Examination showed a stone in the fossa navicularis blocking the urethra. Under ether, meatotomy was performed, and a small, irregular calculus extracted with some difficulty.

Case II.—A Mexican boy, two years of age; his family history was negative, and he had had no other diseases. One year before admission he had a short attack of difficult urination, which cleared up after an administration of Epsom Salts. Three days before admission he had had another attack of retention, with no voluntary passage since. Examination showed extreme phimosis with an edematous prepuce from which urine was dribbling. The phimosis was relieved by circumcision, but on attempting to pass a catheter an obstruction was encountered one-half inch from the meatus, which a probe proved to be a stone.

A meatotomy was performed and the stone extracted, after which a ca-

theter was readily passed and twelve ounces of urine evacuated. The bladder was then sounded but no other stone encountered. To show the comparatively large size of the child's urethra beyond the meatus, the sound used was a No. 18 French, which passed readily.

Case III.—A Mexican boy, ten years old; his family history could not be obtained. He gave a history of difficulty in urination since the age of two. These attacks had become progressively worse, until two months before admission pain had been almost constant, and for two weeks previous retention had been complete and a catheter required several times a day. His temperature was 102° F.; his urine was dark and cloudy; specific gravity 1.018; reaction acid; albumen was present, and the sediment showed pus, bladder epithelium, and blood cells. Examination revealed the presence of stone. A supra-pubic cystotomy was performed and four stones removed from a pocket behind the prostate.

On the day following operation, part of the irrigating solution returned per rectum. This condition lasted for three days, then ceased. On the eighth day he had severe gastro-intestinal symptoms, and his temperature rose in two hours from 100.6° to 105°. The next morning it was normal; rose to 104° at noon, and again dropped to normal. Convalescence was uneventful thereafter. The boy completely recovered, and gained fifteen pounds in weight.

Case IV.—A Russian boy, two and a half years of age; his parents were living and well; had three sisters living; two brothers dead—one of typhoid and one with pneumonia. He gave no history of any illness up to the age of one year, when his mother noticed he cried when urinating. Contrary to the usual rule, the pain and

difficulty were worse at night; between attacks he seemed perfectly well. Six months before admission he had been circumcized for phimosis, but without relief from his symptoms. The attacks gradually became more frequent, until straining and crying when urinating were always present. Examination showed an anaemic child with the cuboid head, bow legs, flaring ribs, and enlarged abdomen of rickets. A small umbilical hernia was present. Sounding revealed the presence of stone which could also be felt per rectum. The urine was pale, strongly acid, specific gravity 1.016—no albumen or sugar. Sediment showed red cells, few leukocytes; bladder epithelium, and many uric acid crystals. A supra-pubic cystotomy was performed and two fairly large stones found quite free in the bladder. The boy's recovery was uneventful. The drainage tube to the bladder was caught in the dressings and accidentally pulled out on the third day, and was not replaced. He voided painlessly from that time on and drainage of urine from the supra-pubic wound ceased in about three days. The wound was closed in two weeks.

Case V.—A Russian boy, four years old; both parents and four brothers and sisters living and well. No diseases of childhood. Had been well to the age of three, then began to have pain and difficulty in urinating. The symptoms were identical with those in the previous case, except that his trouble was most marked during the day. No hematuria was present in either case. Examination showed a rather undersized, poorly developed child. Very restless and fretful. The urine was pale, acid, specific gravity 1.018, with a trace of albumen; no sugar. Sediment showed pus, red cells, epithelium, but no crystals. Stone could be felt with the sound, and the finger per rectum. Operation found a fair-sized mulberry calculus

free in the bladder. This boy was very restless, and on the second day pulled out his drainage tube. A medium-sized catheter was passed through the urethra and retained for twenty-four hours longer, when he pulled that out also. After this no further drainage was used; the child voided without difficulty, and the wound closed about the sixteenth day.

The operation in the three vesical cases was the same. Supra-pubic cystotomy through a median vertical incision, drainage with a rubber tube to the bladder, tucked in after the Gibson method, and gauze to the prevesical space. Before closure, boric acid solution was forced through the urethra and out the tube, and in no

case was there leakage through the sutures or about the tube. A rectal bag was not used; the bladder being distended with 120-150 c.c. of boric acid solution, retained with a rubber band about the penis. In no case was the peritoneum wounded.

The relief in all cases was marked. The children gained in weight and strength, but the greatest change was in disposition; their restlessness and irritability giving place to a child's normal happy condition within a very few days.

The stones in the first four cases were composed of uric acid; that in the fifth case of calcium oxalate.

461 East Colorado.

## CHOLELITHIASIS SIMULATING APPENDICITIS— DISLOCATION OF LIVER

BY REXWALD BROWN, M.D., SANTA BARBARA, CAL.

Dec. 19, 1909. I was asked by Dr. C. S. Stoddard of this city to see Mrs. W. W. R. age 55, suffering with abdominal pain. I found a very frail little woman with anxious facies. Her pulse was 120 and temperature 101.6°. Little examination could be made of the abdomen because of its extreme tenderness—the entire right side was board like and a mass, size of small orange, lay somewhat below McBurney's area. A rather disconnected history elicited the information that for twenty years, following the birth of two children, the patient had not been well. She suffered at irregular intervals more or less abdominal pain, sometimes very severe, and frequently accompanied by vomiting. Obstipation was always annoying and scarcely a day passed without dyspeptic features, gaseous eructations distentions, sour stomach, etc. No doctor had ever been consulted for any of these troubles. The present condition was ushered in ten days previously by sharp cramp like pains in the right lower quadrant

of abdomen some two hours after breakfast. The pains persisted throughout the day, and vomiting occurred early in the evening. A doctor who was called found elevation of temperature, and extreme tenderness over region of appendix. A consultant was brought in, both concurred in the diagnosis of appendicitis, and operation was urged. Patient refused and insisted on medical treatment. Temperature became higher, 102° and 103°, and vomiting occurred several times in the next couple of days. On the fifth day after the onset, a mass appeared below McBurney's area and was exquisitely tender. It slowly grew in size until I saw it with Dr. Stoddard, who was the third physician to see the case. We agreed that there was an appendiceal abscess, well walled off, and urged its immediate evacuation. The patient by this time was ready to submit to any procedure for her relief, and was moved to the Cottage Hospital, where operation soon followed. A right rectus incision



was made along inner border of mass, and our surprise was great upon entering the abdominal cavity, to find directly beneath the scalpel liver structure. The lower border lay well below the umbilicus. Land marks were obliterated. The general peritoneal and pelvic cavities were walled off from the area of disease by old dense and fresh plastic adhesions. Over the site of the caput coli and appendix, neither of which were to be seen, lay an enormously distended gall bladder, covered with a plastic exudate and with beginning gangrene at the upper pole. Directly beneath the gall bladder lay a pocket of pus of some four ounces in amount. The pus pocket was opened—the gall bladder was incised and found filled with ropy bile, pus, five large stones, and hundreds of small stones; many stones were imbedded in the walls. The stones were removed, and tube drainage placed in gall bladder and in pus pocket. The patient made an uneventful recovery, and was home in six

weeks. She still suffers, however, from her general enteroptosis.

There was no thought of gallstones in the diagnosis of the above condition, the phenomena present being classic of appendicitis with localized pus formation. The discovery of abnormality in the liver position was hardly possible through the rigid tender abdomen, even had such matter been considered. Nor was it possible at the operation because of the many adhesions, to determine the real pathology.

It was thought that perhaps a Riedel's lobe hung well into the region of the caecum. This was disproved upon examination of the patient some weeks after convalescence was established, when it was found the liver dullness commenced three inches below the normal points above, and that the edge of the organ was palpable along a line between the umbilicus and the right flank. The liver was seemingly well fixed in position—a true dislocation and rare.

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### LIVER ABSCESS.\*

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BY W. JARVIS BARLOW, A.B., M.D., PROFESSOR OF MEDICINE AND DEAN OF THE LOS ANGELES COLLEGE OF MEDICINE OF THE UNIVERSITY OF CALIFORNIA.

This case is presented for your consideration this evening on account of its interesting history, its diagnosis soon after entering the hospital and result of operation. **Liver abscess** is not so frequently seen by our medical staff, each of whom had an opportunity to examine the case before exploratory aspiration.

This patient (Male, age 36, came under observation at the County Hospital September 19, 1910. American, born at Scranton, Pa., single, white, occupation—hostler. Chief complaint soreness in chest, cough, night sweats, pain in epigastrium, loss of appetite and constipation.

**Family History** is practically negative. Father and mother living and well, ages 64 and 59.

**Previous History**—Lived in Pennsylvania until 13 years of age, where he had diseases of childhood (measles at 7, diphtheria at 8), then in New York until 25 years of age, where he had four attacks of malaria between the ages of 18 and 25, but had been well up to this time. The next two years patient lived in New Orleans, and Chicago. From the latter place in 1900 he came to Los Angeles, where he has lived off and on up to the present time, except for short intervals, which he spent in and about

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\*Case presented at the meeting of the Los Angeles County Medical Association at the County Hospital, on October 7, 1910.

San Francisco, Fresno and in the valleys of Sacramento and San Joaquin. Patient's health remained good until 1903, when he had an attack of Pleurisy (Lt. side) lasting one week, since this attack patient complains of having taken cold easily with attacks of cough and expectoration, lasting a few weeks and recurrent attacks of pain in his left side, which he attributed to pleurisy.

During June and July, 1909, he had an attack of dysentery in the Sacramento Valley, lasting one month.

During the whole of August and September, 1909, he had malarial fever. He was badly jaundiced and began having pain in his chest and abdomen, which pain having remained to the present time

In October, 1909, while breaking a horse he fell from his breaking cart, striking on his head and shoulders, after which the pain in his right side of chest was worse. Since that time has not been able to work for more than a few days at a time because of the pain and tenderness in the back and lower part of both sides of chest.

During the next six months he had several attacks of jaundice of slight or moderate degree, none of which he says were severe.

Gonorrhea fifteen years ago.

No definite specific history. Normal weight 150 lbs. Has lost 10 lbs.

**Present History.** Patient dates his present illness at Sacramento, September 5, 1910, because he had to give up trying to work. Chief complaint has been pain in the back, which he thought was caused from doing heavy work. About this time he had several chills, which he attributed to malaria and took quinine. He has been unable to lie in any one position very long on account of the discomfort in chest and pain in his back, both of which he did not locate. He had a few night sweats, slight cough and expectoration, occasional nausea and

great weakness. Appetite fair, bowels constipated.

#### PHYSICAL EXAMINATION.

**Inspection.** Fairly well nourished, skin sallow, slightly icteroid and moist, face pale. Conjunctivae clear, pupils react to light and accommodation. Teeth in good condition. Tongue heavily coated. Cervical glands, slightly enlarged.

Slight oedema of feet and ankles.

**Chest.** Not well developed, ribs prominent. Retraction of both apices. Expansion poor, deep inspiration causes pain on both sides. Percussion, anteriorly—slight dullness at both apices to 1st rib. Absolute dullness on rt. side from upper border of 5th rib, mid-clavicular line to base, at the 6th rib in mid-axillary line and at 8th rib in mid-scapular line. Posteriorly: There is dullness above spine of scapulae, with normal resonance to 7th interspace on rt. side and to 9th on lt. side, with flatness below on rt. and less marked dullness below over base on left.

**Auscultation:**—At rt. apex breath sounds distinct with roughening on inspiration, no rales. Below increased breathing to 4th rib, then diminished breathing and voice below. At lt. apex to 1st rib broncho-vesicular breathing, increased voice. Below the breath sounds somewhat diminished and distant, voice normal. Posteriorly:—Rt. side breathing is diminished to lower border of scapula, voice increased. Below the spine of scapula both breathing and voice are absent. In rt. mid-scapula region to angle  $1\frac{1}{2}$  inches from vertebrae column there are pleural rales. On lt. side the breathing is bronco-vesicular at apex, sonorous and increased below to spine of scapula, where the breathing and voice become diminished to base with a few subscrepitant rales.

**Heart:**—Apex beat at 5th space, 3 c.m. inside of nipple line. Action regular, rapid, no murmurs. Pulse full

and regular 104. Temp. at time of examination 101.4.

**Urinalysis:**—24 hours specimen, amount: 1530 c. c., pale amber, cloudy, sp. gr. 1020, alkaline. No albumin, no sugar, no bile, no indican. Urea, 27 gms.

**Sputum, Examination:**—Shows no Bacilli.

**Feces Examination:**—Was reported negative.

**Blood Examination:**—Shows: Reds, 4,600,000; Whites, 14,000; Haemoglobin, 75 per cent; Polymorphonuclears, 60 per cent; large Lymphocytes, 25 per cent; small Lymphocytes, 8 per cent; large Mononuclears, 3 per cent; Eosinophiles, 4 per cent.

From September 20th to September 26th patient's temperature was irregular and never high, running between normal and 101 each day, with no chills and no distinct sweating though the skin was moist at intervals. There was always tenderness of the rt. costal region of the ribs and liver. Below the ribs deep pressure causing a good deal of tenderness.

On questioning the patient closely he said he had occasional shooting pains running up over the liver region to the back with sensation of weight on the rt. side.

On account of history and physical findings liver abscess was suspected. This was differentiated from pleurisy with effusion, empyema and lung abscess, all of which were considered, but the most probable diagnosis was liver abscess.

On September 27th, exploratory aspiration was done. The needle entered near the posterior axillary line at the upper border of the 10th rib and 10 c. c. of thin bloody pus was withdrawn. The stained specimen showed no organisms. Culture showed *Staphylococcus aureus*. The patient's temperature has still varied from 99 to 101 with normal morning temperature.

## OPERATION.

This was done by Dr. W. W. Beckett, one of our visiting staff of the U. C. The usual incision, as for all gall bladder operations was made, one and one-half inches from the median line, extending from the margin of ribs three and one-half inches downward. The surface of liver presented a normal appearance, was smooth, no fluctuation was elicited. The gall bladder seemed normal in size, but a little thickened. The canula was introduced on the anterior surface of the right lobe and passed towards the point of the exploratory puncture with no results. The canula was partially withdrawn and pushed upwards 1 1/2 to 2 inches toward the median line with 500 c. c. of pus withdrawn. Presently an incision was made along the course of the canula with the result that about 2,000 c. c. pus of thick bloody character escaped. By exploring the cavity with the dressing forceps the abscess seemed to be one large cavity involving part of both the right and left lobes, extending pretty well posteriorly. A large draining tube was then inserted and stitched to the liver and later parietal peritoneum. The wound was then closed and dressing applied with the tube passing through the center and another tube connecting with the first into a 1,000 c. c. bottle, which was suspended at the side of the bed. Since the day of the operation for several days about 500 c. c. came away every 24 hours.

Cultures made from the discharge show *staphylococcus aureus* and *albus*, no amoeba or other organisms were observed.

The day following the operation the temperature was 101, since which time the patient's temperature has been normal with one exception, October 6th, when it rose to 99.4. The aetiology seems not absolutely fixed. At first is a history of dysentery, which



may or may not have been amoebic. There is the history of traumatism, but the patient states distinctly that he had the pain in his chest and abdomen two months prior to the accident, and just after an attack of malaria and jaundice. There is another possibility that it may have been an abscess from the inflammation of the bile passages caused by parasites.

**October 25th.** Since presenting this case on October 7th, it may be interesting for the readers of this report to know that the patient has been doing very well and has been entirely free from the pain, is very comfortable, appetite good, bowels regu-

lar, and is gaining in weight and strength. The wound drains about two to three ounces of pus in 24 hours.

The blood count on October 21st was: Reds, 2,900,000; White, 9,400; Haemoglobin, 60 per cent.

Differential count: Polymorphonuclears, 69 per cent; Large Lymphocytes, 15 per cent; Small Lymphocytes, 8 per cent; Large Mononuclears, 7 per cent; Eosinophiles, 1-2 per cent.

For the history and special examinations on this case I am indebted to Doctors Shippey and Gates, both internes at the County Hospital in medical ward "A."

Security Building.

## MENTAL DEFECTS FOLLOWING THE USE OF ALCOHOL.

BY JAMES T. FISHER, M.D., PROFESSOR OF NERVOUS AND MENTAL DISEASES, THE COLLEGE OF PHYSICIANS AND SURGEONS, MEDICAL DEPARTMENT, UNIVERSITY OF SOUTHERN CALIFORNIA, VISITING PHYSICIAN TO THE COUNTY HOSPITAL.

Were it not for the fact that the science of medicine is attended with phenomena unique and sometimes inexplicable, presenting problems which defy rational solution, the practice of the healing art would certainly lose its charm.

The alcoholic, for instance, continues to live, move and have his being manifesting his morbid capabilities under conditions somewhat bizarre, and even the keenest medical minds are constantly compelled to admit their impotency to unravel the pathological mysteries incident to their mental condition.

In our service at the County Hospital the last few years, we have had opportunity to examine several hundred of the more interesting types of alcoholic psychoses.

The clinical work in a service like this is obviously more or less unsatisfactory, and will be so until we have sufficient accommodation and facilities for treating these unfortunate deviates; as a consequence these patients must be moved along through the ave-

nue of the courts for treatment in private or public institutions. A great many of these patients are admitted without any history, as is natural in any cosmopolitan city, having no friends or relatives from whom satisfactory histories can be obtained. Alcoholic psychoses in all their variety were represented.

About three-fourths required commitment, the remainder recovered sufficiently to be discharged. By far the largest group was the acute alcoholics, varying in degree from slight delirium to well defined systematized delusional states.

Next in frequency came the chronic alcoholic deviates showing often criminal tendencies and marked mental deterioration.

There was likewise another interesting group known as alcoholic paranoia, showing very evident delusions of persecutions, together with the characteristic delusions of jealousy and marital infidelity.

These false ideas often seem to center about the sexual organs. Typical

Korsakows syndrone was noted in only five instances. A history of drinking before breakfast was noted in all as was also pupillary abnormalities.

The possibility of confounding this type with General Paresis was carefully considered.

That alcohol is a poison, and the most potent factor next to heredity in the causation of insanity, no one in position to judge will deny.

In the examination of the patients it was found that over 70 per cent had a neuropathic heredity. In many instances this fact could not be elicited from the patient, but from some member of the family or the old hospital record sent me from Patton. A history of alcoholism in his immediate or somewhat remote ancestor was the rule. Some few gave no such history, but showed an inheritance of some vice or disease, particularly tuberculosis. They all exhibited an essentially neurotic temperament. A vasomotor weakness of a greater or less degree was present in nearly all the cases. The continuous ingestion of alcohol had produced changes in the vessel wall and nearly every organ. The early changes show congestion; later this is followed by degeneration, either fatty or hardening, otherwise known as sclerosis. The action on the nervous system first, last and always is simply that of a poison. Many men offer a great resistance to its action, but nevertheless succumb to its insidious and constant action on the nerve cells in the brain and cord.

It is, however, not to its influence in general that I now make reference, but to permanent and temporary mental defects that we know are of alcoholic origin. It is, indeed, to be regretted that such a diminished amount of sympathy is accorded these unfortunates, who, through an absolute paralysis of the will have become such hopeless degenerates.

Alcohol, like other toxic drugs affects our nervous systems very differently and exercises a selective action on our many nerve centers. One prominent and general characteristic of the action of various toxins on the nervous tissues is that they are highly selective poisons. What we are pleased to term idiosyncrasy is in reality an inherited or acquired weakness of certain neurons leading to a condition of lessened resistance, or of increased vulnerability.

In the average man the motor phenomena largely overshadow the other changes, while in some, the sensory predominate, and in others the psychic. The mental disorders arising in the life history of the chronic alcoholic are distinct and somewhat pathognomic. These mental troubles present certain types which under ordinary circumstances are fairly easy to recognize. The melancholic type, for instance, does not differ from the melancholia arising from other causes, and on account of his depressive delusions may commit suicide or do violence to others. The alcoholic somnambulist may steal or kill in his abnormal sleep. When the psychosis assumes the type of acute mania, the patient is entirely bereft of reason and may murder whomsoever he comes in contact with. The alcoholic dement may be totally unfit to care for himself on his property and requires the protection of the law. The most common type of insanity due to alcohol is Chronic Alcoholic Delusional Insanity or Alcoholic Paranoia. Unfortunately the name is somewhat misleading as the patient is not insane or violent, except at certain periods. The alcoholism is chronic, but the mental derangement appears rather as an outbreak or episode in a case of alcoholism, the patient not having been previously regarded as insane.

Long before the patient exhibits any distinct stigma of alcoholic insan-

ity there appears a gradual lessening of the phychic power and to some extent a change of character similar to incipient dementia paralytica. There is a loss of mental grasp and a decided impairment of the will and memory. In a very large majority of the cases examined where I could get any corroborative history from the family, the delusions shown by the patients were somewhat similar and quite pathognomonic of this form of disease. The history of chronic alcoholism was associated with the delusion of marital infidelity or trouble arising in the marital relations. Just why the delusions should so insistently circle around the sexual organs is not apparent; except that possibly it may be due to failing sexual power. This false belief seems to occur with regularity in the mind of the patient. As Spitka has put it, the combinations of the delusions of mutilation of the sexual organs, with the delusion that the patient's food is poisoned and that his wife is unfaithful to him may be considered as nearly to demonstrate the existence of alcoholic insanity as any one group in mental pathology can prove anything. Many individuals suffering from this dangerous psychosis are able to suppress or restrain their delusions by mere mental strength, or by the assistance of others, and are thereby able to cope with their delusions and do no harm to the object of their wrath. These patients showing delusions of persecution are of the most dangerous type, and are the perpetrators of the tragic and heinous crimes that we read of in our daily papers. In the early spring I was consulted by the family of one of our leading professional men, a man of extraordinary mental attainments and standing, and later examined the gentleman on several occasions. He was perfectly rational on all subjects except a growing conviction that his

wife was unfaithful to him, and would resort to all sorts of tricks and expedients, some of which were despicable, to verify his suspicions. He would tell me with tears in his eyes that he never could find anything to support his belief, but that the horrible suspicion was getting stronger and stronger. Nothing I could say or do modified or changed this dangerous delusion. Though none of his family knew it, this man had for the past year been taking over a pint of whiskey a day.

These individuals, possessing faulty nerve supply and ill balanced nervous systems, plus an alcoholic habit, can hardly be expected to go through life with its many disappointments, hardships and reverses, without some nervous or mental crash. Dipsomania is a psychosis of a peculiar nature. It is an impulsive insanity with an hereditary basis. It is a term often misused, and does not necessarily mean a periodical excess in the use of alcohol, as is popularly believed. Its derivation means thirst madness, and the impulses may take another direction, as theft, arson or sexual perversion. The dipsomania may exhibit itself by recourse to morphine, cocaine, or, in fact, to any other drug instead of alcohol. The dipsomaniac may by virtue of his excesses show all the symptoms of the chronic alcoholic and manifest delusions and hallucinations. These are rather the symptoms of his excesses than proof of his having a well defined dipsomania. The dipsomaniac is a neuropathic individual, who, as a result of inherited insufficiency, physical and mental, may become the victim of a series of obsessions, imperative concepts, with the morbid impulses which are their natural outflow. The forensic importance of dipsomania is obviously great, and its study explains many of the most peculiar and startling crimes of which we read in the daily press. Time will



not permit more than a passing reference to this feature of the disease. The dipsomaniac may begin his excesses early or late in life, and may go years without having a succeeding attack. The fact that alcoholic or drug excesses occur at intervals with longer or shorter periods of abstinence has caused it to be classed among the periodic or cyclic insanities. But periodicity is not an essential feature, as a dipsomaniac may have only one or two attacks in a lifetime. In the cases under the writer's notice the attacks occurred from three to five times during the year, lasting a week or two weeks. All cases of true dipsomania have many characteristic features as to onset and duration and subsequent course. They generally begin with a certain amount of mental depression and some ill defined physical distress. Malaise often is a prominent symptom. There is an irresistible desire for intoxication. The patient realizes fully that to drink once means obli-

vision for many days or weeks. There is always a keen struggle with the will, a strong desire to resist, but to no avail unless the patient puts himself under restraint.

As in other diseases we find individuals who do not exactly correspond to this type, as the man whose life seems to oscillate between what might be termed hard drinking and periods of comparative sobriety and again attacks of insane alcoholism associated with dipsomania.

The point in my paper which I wish to impress is that chronic alcoholism almost invariably leads to moral obliquity and some form of mental derangement. That no man is exempt from this law. That when we hear our patients talk about family troubles, suspicions of wife or husband, in brief of marital infidelity, coupled with a history of alcohol, we may consider this casual complaint, one of very great importance and value.

Wright & Callender Building.

## THE PRESENT STATUS OF ABDOMINAL DRAINAGE.

BY C. P. THOMAS, M.D., LOS ANGELES, CAL.

In this short article on this all important subject, I will endeavor to give not only the conclusions reached in actual experience by myself, but as well those generally accepted by the medical profession as represented by America's greatest surgeons.

Of the varieties of drains now in general use, but three may be favorably mentioned, and the several indications for their use described. First; the tubal drain of the varying sizes of soft rubber tubing either dressed or undressed. Second; the spiral drain, which is made by splitting a rubber tube spirally, and placing in its center loosely a strip of iodoform or other harmless medicated, or sterile gauze, being careful to avoid allowing the gauze to protrude from the lower end of the tube. Third; the cigarette, or sometimes called the

wick drain, which is made by wrapping or rolling gauze in oiled silk, or rubber tissue; being careful to completely cover the gauze with the wrapper so it cannot touch the bowel or other intra-peritoneal structures, for reasons which will be given later.

Gauze alone, is no longer used for abdominal drainage for four good reasons. First: its meshes soon fill up with serum or pus, and inflammatory tissue, until it no longer drains through its substance. Second: endothelial and inflammatory tissues soon fill in the outer meshes of the gauze entirely preventing capillarity, also preventing fluids escaping even along the outer side of the gauze. Third: the gauze, by damming up the secretions, causes much inflammatory action, thereby increasing intra-peritoneal adhesions.

Fourth; the great pain and danger caused by the removal of the adherent gauze, when numerous lymphatics are opened up, which may carry infection and produce abscesses well away from the site of drainage. Severe and protracted hemorrhage may even follow its removal, and perforation of intestine or other important viscera may occur as a result of erosion and destruction of their peritoneal coverings.

It may be necessary in rare instances, where severe oozing cannot be controlled, to pack gauze against the surface and leave it there for a short time; but, in such cases, oiled silk or rubber tissue should be placed between the pack and the intestine to prevent adhesions to the gauze.

Plain rubber tubing, without fenestration or wrapping, may be used to replace the spiral or wick drain after its removal, and for draining the gall bladder; or two large ones may be placed through the vagina into a large pelvic abscess, which has been drained through the cul-de-sac, without a large abdominal incision but under no other circumstances would I drain the abdominal cavity by the vaginal route, except possibly following a hysterectomy.

The wrapped rubber tube is used by some surgeons in gall bladder drainage, it being claimed that the inverted edges of the gall bladder can be fitted more snugly to the dressed than the undressed tube. I do not agree with this conclusion, and believe that the dressed tube contains an element of danger in that bile or septic material may enter the abdominal cavity between the layers of the dressings. For some time I have used only the plain rubber tube in the gall bladder; large sized, if the bladder wall is very much diseased and septic, small one, when not.

When possible, I invert the edges of the gall bladder incision and do not stitch it to the peritoneum, but

reinforce this drainage by placing a cigarette drain well down by the side of the gall bladder and drain, bringing both of them, when possible, through a stab wound directly over the gall bladder, especially when the primary incision has been made long, or through the right rectus muscle. Hernia and long continued suppuration may be avoided by this method.

Should the gall bladder be contracted or so diseased that inversion is impossible, the duct having been drained or bladder removed, after fastening the small tube drain in position with fine cat-gut, a very large tube, split on the side next the liver, and notched for the passage of the common duct at its lower end, may be placed around the small tube and gall bladder, carrying it well down to the posterior abdominal wall, and letting it protrude about an inch.

There should also be placed in this large tube a loosely wrapped wick drain or strip of gauze for capillarity, which is to be changed daily.

The large tube serves as a cofferdam between the infected and non-infected parts, takes care of any leakage which may come from the bladder or ducts, and also prevents adhesions forming between the stomach or intestines and the diseased area. It may be removed at the end of four or five days when a good protective wall will have formed.

The spiral drain is used in all other conditions wherever pus is to be drained, one or more being placed, in sizes to meet the indication, leading from the depth of the abscess cavity, preferably bringing them out through a stab wound in the skin at the nearest point to that cavity.

After twenty-four hours the gauze only should be removed, the tube remaining, still draining, being pulled out a little each day until the flow of pus ceases. In the event of fouling of the tube, it may be removed, and a

smaller plain rubber tube immediately substituted.

This form of drainage has been in use for pus cavities by the writer for many years, in about one thousand cases, and is not only ample, but is free from the many elements of danger which the gauze drains possess.

The cigarette, or wick drain is to be used only where blood or serum is to be removed, or as an adjunct to spiral drainage where it is desired to provide for a very free flow. It is an efficient drain for about two or three days only, which is usually long enough for blood or serum. Should the discharge change to pus, it must be removed and a smaller tube drain placed at once. This variety of drain may also be placed through a stab wound well away from the primary incision, thus allowing it to close by first intention.

While the above varieties of drainage meet all indications, much can be said of the proper method of placing them. The position of the patient in bed during the active period of drainage is also a most important factor. It must be remembered that the abdominal cavity is very irregular in its interior outline, and that there are several pockets into which fluids will gravitate when the patient lies prone upon the back. Provision must be made for drainage of all such pockets which are near the seat of infection. If in the appendicular region, the patient should be kept on the right side with head of the bed slightly elevated. If general peritonitis is present, the Fowler's position is preferable.

One tube, even in the mild cases, should be placed in the pelvis, where fluid is usually present in acute infectious cases, due to gravity from above; and one above the pelvic brim on the right side, carrying both out through the same small wound. In such cases the wick drain may be put

into the pelvis, if it contains only serum, and the spiral one into the pus cavity.

In gall bladder drainage, when leakage is feared, the bed should be level, and the patient kept on the right side for forty-eight hours after the operation. In pelvic drainage, the head of the bed may be slightly elevated when the infection is mild, and the Fowler's position when severe infection or severe peritonitis is present.

Vaginal drainage, when the abdominal cavity is opened above, is, in my opinion, neither necessary nor justifiable.

Intra-abdominal pressure with proper posture of the patient, and correct placing of the drains, will serve every purpose and is free from the following objections: The vagina is a foul canal and contains even in health pathogenic micro-organisms which may invade the system through the incisions made for drainage. Removal of the vaginal drain is very painful and its replacement without anesthesia almost impossible. It tends to cause uterine fixation by the adhesions which form from plastic inflammation around the drain.

Intestinal perforation due to pressure, erosion or necrosis, is more common from vaginal drainage, because the weight of the intestines comes against the end of the tube instead of being along the side of it. Several cases of this kind have been seen by me.

In my earlier experience, the mechanics of drainage were not fully understood or appreciated, and as a result, many re-operations and some deaths had to be recorded, but in recent years, since I have followed the methods above outlined the drainage cases have done quite as well as the clean ones, and excessive adhesions or hernia are the very rare exceptions instead of the rule.

Consolidated Realty Bldg.



## MUMMIFIED FETUS.—A CASE REPORT.\*

By RALPH L. ALEXANDER, M. D., Tempe, Arizona.

The mummified fetus which is presented was born at term, September 17, 1907, having remained lifeless in utero from about the twenty-second week of gestation. I was called to attend the young Mexican mother in the confinement. Vaginal examination revealed a bag of water, tense and protruding an inch or more beyond the external os. As I proceeded to diagnose the presentation, the membranes ruptured. This accident was followed by the presentation of a withered foot and the cessation of uterine contractions.

After waiting in vain half an hour for the re-establishment of labor pains, I left the house. Two hours later, I returned, and was disappointed to find that labor had terminated and the placenta had been buried. I give this detail to explain why I am unable to describe the placenta; also to call attention to the mal-presentation of the fetus and to the fact that amniotic fluid was present. It is stated by Edgar that this fluid is absent in these cases. It was present in this case in such a large quantity that the mother was justified in believing that she was to have a full-grown baby, though she had not felt fetal movements for many weeks.

This mummified fetus is very like those described in text-books. It is greyish in color, having a wrinkled, senile appearance. It is hard and cuts like leather. The extremities are flattened.

When a mummified fetus has for some time been subjected to pressure, as in the case of twins, the live embryo by its growth gradually compresses the dead one. The latter will

become very flat and is then known as fetus papyraceous.

The mother of this fetus is an unmarried, robust, Mexican woman, about twenty years of age. She has never had any acute or chronic illness except a very persistent attack of sciatica. After several weeks, this subdued without the use of anti-syphilitic treatment. I have attended her in each of her three confinements. No. 1 was a full-grown dead fetus; No. 2 was this mummified fetus; No. 3 was a normal boy. This woman's mother is syphilitic. She makes the remarkable claim of having given birth to thirty-eight babies, all but six of whom were either still-born or died in infancy. For reasons already suggested, it is impossible to give any history of the father of this mummified fetus.

Mummification may occur in any dead fetus retained in the uterus, provided the membranes are intact to exclude the air. According to Lusk, however, this change usually follows when death has been the gradual result of inanition from inadequate blood supply. Tortion of the cord, twisting of the cord about the neck, and twin pregnancies are examples of such cases. Mummification seems also more apt to occur in those cases where death of the fetus takes place about the third or fourth month of gestation. It also frequently follows death of the fetus in ectopic gestation.

Retention of a dead fetus in utero may be due to the uninterrupted development of the placenta. It sometimes happens that this appendage shares the fate of the fetus. In these cases, the cause for retention, given by Lusk, is the diminished irritability of those reflex nervous centers which control the expulsive uterine efforts.

\*Read before the Arizona Medical Association, April 21, 1910.

## THE INFLUENCE OF MIXED BLOOD UPON THE SUSCEPTIBILITY TO INFECTION IN THE AMERICAN INDIAN.\*

BY ROY E. THOMAS, M.D., PHOENIX, ARIZONA.

In January, 1910, an epidemic of whooping cough broke out at the Phoenix Indian School where there are some six hundred Indians between the ages of seven and twenty-four.

So far as I could learn this was the first epidemic of whooping cough in the history of the institution, although there were many cases of measles, with some deaths, three years ago, and there has recently occurred an occasional case of diphtheria.

The superintendent of the school, who has been in the Indian service for seventeen years and during that time associated with four schools, gave me his opinion, that as a rule, full blood Indians were not susceptible to whooping cough. Though based upon many years' experience in some of the largest Indian schools in the country located near cities in which the usual number of epidemics occurred without invading the Indian schools, this theory was convincingly disproved by the occurrence of nearly one hundred cases of whooping cough in a very few weeks. Careful inquiry among the older children has convinced me that whooping cough is occasionally prevalent upon the reservations, but a larger number escape infection than would be the case among white children under similar conditions.

To take no advantage of such an abundance of clinical material seemed a pity. Accordingly I began a study to prove or disprove a theory which I have held tentatively during a brief period spent in the Indian service. I undertook to prove that the full bloods are less susceptible to infection than those of mixed blood.

Though there seemed to be little literature upon the subject I believe

the idea is prevalent that the Indian shows a marked susceptibility to the exanthemata; the theory being that these diseases were unknown among them until the advent of white men, since which, insufficient time has elapsed for the development of partial racial immunity. Recently the government has awakened to the fact that unless active steps are taken to check the ravages of tuberculosis among the Indians it will soon be possible to dispense with one rather expensive branch of the Department of the Interior.

Is the Indian's poor resistance to tuberculosis and the acute infectious diseases due to the absence of a partial racial immunity, or is it due to his personal habits and unhygienic surroundings? If the former, a half-breed should be more resistant to these infections than a full blood, having inherited in some degree at least, any such immunity which his white parent may have had. I shall try to present some evidence against this theory.

At the Phoenix school the percentage of mixed bloods is 10, and it has been the observation of those connected with the school hospital that more than 10 per cent. of the children reporting for treatment are of mixed blood, and this observation is supported by the hospital records. As an objection to this point it might be said that the full-blood is less apt to ask for medical treatment than the mixed blood, and this I am not prepared to deny, though a large proportion of the children who report at the hospital are sent to us by the matrons and the disciplinarian without having made any complaint whatever. It is not uncommon to have cases walk to the hospital on the third day of pneu-

\*Read before the Arizona Medical Association, April 21, 1910.

monia, or during an attack of appendicitis, and I recall one boy who walked in with his abdomen enormously distended from a mechanical obstruction of the bowel of two days' duration.

On the hospital records I found three series of cases sufficiently large to be of value in the present study.

From the epidemic of measles occurring in the school three years ago I found a record of 174 cases; of this number but 13, or 7.4 per cent., were of mixed blood. There were six deaths, all full bloods.

In the recent epidemic of whooping cough there were 95 cases reported at the hospital, and perhaps a dozen more at the homes of employees. Of these 95 hospital cases 20, or 21 per cent., were mixed blood. Eleven of the total number of cases were complicated by a bronchopneumonia, but there were no other complications and no deaths. I say there were no other complications, but 16, or nearly 17 per cent., of these 95 cases are now tubercular. It is interesting to note that many of the Indians who had never had whooping cough escaped while of the white children on the grounds (children of employees) not immunized by a previous attack, every one contracted the disease.

In the two epidemics just mentioned half of the cases were under 12 years of age; and while the percentage of full bloods in the whole school is 90, of children under 12 years it is 98. This makes our general average of mixed bloods for the two series about 6 per cent, rather than 10 per cent.

The last series available is made up of tubercular cases. A few weeks ago 71 of the intermediate and older children were examined because of cough or marked loss of weight. Of these 71 cases 52 were diagnosed as tubercular, and of these 52, 50 gave positive reaction to the tubercular test. Of the 50 positive reactions 6,

or 12 per cent., were obtained in the mixed bloods, of which only 8 were examined.

As data from which to draw our conclusions we have two series of cases of contagious diseases in which the percentages of mixed bloods are 74 and 21 (an average of 16.2 per cent.) occurring in a group of children in which the percentage of mixed bloods is approximately only 6 per cent.

We have a third series of tubercular cases in which the percentage of mixed bloods is 12 per cent. in a group of children in which the percentage of mixed bloods is approximately 10 per cent.

Although the number of cases reported is not sufficiently large to prevent any conclusion from seeming presumptuous I believe we are justified in taking this negative position—that an admixture of white blood in the American Indian in no way serves to protect him from the infections to which he is peculiarly susceptible.

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Charles I. as a child was weak and ailing. His legs were so feeble that he crawled like a baby until he was nearly seven years old. He was backward in his speech and had an impediment which he never surmounted.

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"Hermes had slept in hell with Ignorance,

Yet, as a punishment, they added this,  
That he and Poverty should always  
kiss;

And to this day is every scholar poor:  
Gross gold from them runs headlong  
to the boor."

—[Christopher Marlowe, 1564-1593.]

Hermes was the god of roads, the discoverer of music, the god of sleep and dreams, and was known as Hermes Logios, god of the Art of Rhetoric.



# A PRAYER FOR DOCTORS AND NURSES

BY WALTER RAUSCHENBUSCH

**W**E PRAISE Thee, O God, for our friends, the doctors and nurses, who seek the healing of our bodies. We bless their gentleness and patience, for their knowledge and skill. We remember the hours of our suffering when they brought relief, and the days of our fear and anguish at the bedside of our dear ones, when they came as ministers of Thee. May we reward their fidelity and devotion by our loving gratitude, and do Thou uphold them by the satisfaction of work well done.

We rejoice in the tireless daring with which some are now tracking the great slayers of mankind by the white light of science. Grant that under their teaching we may grapple with the sins which have ever dealt death to the race, and that we may so order the life of our communities that none may be doomed to an untimely death for lack of the simple gifts which Thou hast given in abundance. Make Thou our doctors the prophets and soldiers of the kingdom, which is the reign of cleanliness and self-restraint and the dominion of health and joyous life.

In their whole profession, strengthen the consciousness that their calling is holy and that they too are disciples of the saving Christ. May they never through the pressure of need or ambition surrender the sense of a divine mission and become hirelings who serve only for money. Make them doubly faithful in the service of the poor who need their help most sorely, and may the children of the workingman be as precious to them as the children of the rich. Though they deal with the frail body of man, may they have an abiding sense of the eternal value of the life residing in it, that by the call of faith and hope they may summon to their aid the powers of Thy all-pervading life.

—American Magazine, November, 1910.

# SOUTHERN CALIFORNIA PRACTITIONER

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## EDITORIAL

A. M. A., LOS ANGELES, JUNE 26,  
1911.

The editor of the SOUTHERN CALIFORNIA PRACTITIONER is sending the following letter to each of the thirty-three thousand members of the American Medical Association:

"My Dear Doctor:

"The Los Angeles meeting of the A.M.A., beginning June 26th, 1911, will be one of the notable occasions in the history of this organization.

"The physicians of California have already, through their committees, begun the active work of preparation.

"Dr. H. Bert Ellis, suite 245 Bradbury building, Los Angeles, is the chairman of the executive committee and will answer any pertinent questions.

"This is the time to visit California and at the same time attend the A.M.A.

"San Francisco, 500 miles north of Los Angeles, can show you many interesting features of the historic disaster as well as her wonderful rehabilitation, that surpasses anything in previous human records.

"Los Angeles has several of the finest hotels in the world, theaters, opera houses, mountain and sea-side resorts, fruit laden orange groves and beautiful flower gardens and parks.

"Every member of the A.M.A. will be invited to gather all the oranges he may wish from the trees and will be taken to Catalina Island, twenty-five miles out to sea. The latter trip will be an auspicious introduction to the Pacific Ocean.

"The ladies of Los Angeles will see that your wife and daughters have a good time. Social functions are being arranged for them in our choicest homes.

"Come and be happy and have a delightful memory to dwell within you the balance of your life.

"Hoping to see you in Los Angeles next June, I am,

"Yours fraternally,  
WALTER LINDLEY,  
Editor and Publisher

Southern California Practitioner."

We believe Los Angeles' hospitality will be supplemented by the enthusiastic co-operation of business and professional men of all surrounding cities. There should be a Pasadena day, a Riverside day, a Long Beach day, and a San Diego day. Santa Barbara should also organize. Ten thousand doctors and five thousand members of their families should take advantage of the low railroad rates and come to the A.M.A. meeting.

This will be a great lesson in climatology. A lesson to the instructors. The medical profession of America will have learned that California is an ideal summer resort. Each doctor thereafter will have this to impart to those who appeal to him for advice. Every California physician has one or more friends in the profession who live east of the Rockies. Write a postal card and tell him to come to the A.M.A.

#### ASTHMA AND ANAPHYLAXIS.

Reasonable success is possible in palliative treatment of acute attacks of bronchial asthma, but a radical cure and a correct knowledge of the essential pathology of the disease are not established.

In The Journal, A.M.A., September 17, 1910, S. J. Meltzer discusses the re-

lationship between this disease and experimental anaphylaxis in guinea pig and offers the suggestion that it is possible that a condition exists in cases of bronchial asthma of anaphylaxis to some as yet unknown substance.

In hay fever and rose colds there is beyond reasonable question a hypersensitiveness to the action of pollen of certain plants which can be adequately explained as a state of anaphylaxis to unknown proteids in plant pollen, and Meltzer's surmise that a similar or analogous anaphylaxis to some proteid exists in asthma is of the greatest interest.

Present knowledge of experiments at anaphylaxis began in 1903 with a report by Theobald Smith to Paul Ehrlich of the increased susceptibility of guinea pigs to second injections of diphtheria toxins. Names prominent in the work along these lines, among others, are von Behring, von Pirquet, Shiek, Roseman, Anderson, Gay, Southard, and Auer and Lavis. It has been satisfactorily proven that experimental anaphylaxis can be established in guinea pigs by subcutaneous injection of cow's milk, egg albumen and some vegetable proteins. The phenomena of experimental anaphylaxis are those of rapid and violent respiratory failure. Post mortem there is found extreme dilatation of the pulmonary alveoli due to constriction of the smaller bronchii through tonic spasm of their unstriated muscle fibres. Air cannot be made to enter or leave lungs in this condition. Auer and Lewis found that in many cases



the anaphylactic attack can be prevented by a previous injection of atropia. Relaxation of spasm of unstriated muscle fibre is a physiological action common to all remedies which promptly and positively relieve attacks of bronchial asthma, viz: adrenalin, atropia, eupatorium, grindelia, hyoscyamus, lobelia, stramonium, potassium nitrate, primarily, and ultimately, of chloral hydrate, chloroform and hypodermics of morphia. These facts establish a close unity in the essential pathology in conditions in experimental anaphylaxis and acute attacks of bronchial asthma and constitute an important contribution to medical knowledge, and one of great promise. They warrant the conclusion that relief in attacks of bronchial asthma corresponds with relief of spasm of bronchial muscular fibres, and they indicate the importance of giving the usual remedies promptly, and of establishing their characteristic action as rapidly as possible. Knowledge that a given therapeutic measure is correct beyond a reasonable doubt lends to it a confidence and effectiveness.

E. W.

#### CURRENT EVENTS FOR NURSES.

The November number of *The Trained Nurse* has an article on teaching current events in hospitals in the course of which it says:

"In the outline of the course of instruction for the training school at Morton Hospital, Taunton, Mass., there is included a class session every two weeks devoted to current topics. In the California Hospital, Los Angeles,

a similar custom has been inaugurated, and we earnestly commend the suggestion to training schools in general. We are always deploring the "shop talk" of nurses, the fact that they lose interest in outside matters, and clatter away about affairs in their own little world—simply and solely because they don't know what is going on in the big world outside, and are absorbed in the little world of their own. A weekly or fortnightly class hour devoted to significant current events would be one of the surest ways of getting at the root of the bad conditions we deplore. Such a course need cost the hospital nothing but a little effort in organizing it. Some of the bright, gifted ladies of the board of managers of the Woman's Aid Society would be delighted to prepare a little study of current events. A high school teacher, librarian, clergyman, college professor, or bright newspaper man or woman could be secured to assist. Even the president of the board, if he is a wideawake man of affairs, would be willing to bring to the nurses something worth hearing about what is going on in the world.

What is there at present going on which might be worth taking up in a current events class as a "starter?" Get the late number of the *Review of Reviews*, *World's Work*, *Outlook*, and such magazines, and you will find enough material for lectures for months. Select the topics which seem most interesting, significant and altogether worth while, and assign them to some friend outside the hospital for study. Get the nurses interested in the big outside world. There

is no surer way to check the aimless, useless chatter about what Mrs. A. said, or Mr. B. did, or Miss C. wanted to do, or Dr. D. did do, than by giving them something else to think about and talk about."

The California Hospital originated this idea and began putting it in effect two years ago.

Instead of having a formal lecture, once a week or fortnightly, made up from the Outlook or Review of Reviews, the California Hospital management believes in its own plan of having a condensed daily paper made up each morning from the daily papers of that day.

This paper is read while at luncheon, the reading not occupying over ten minutes. For instance just now it is the opera now being given in Los Angeles, the anti-American riots in Mexico, the disappearance of Tolstoi with a brief sketch of his life and work, the result of the elections, the falling price in food stuffs and the census report, showing the population of Los Angeles to be 319,198, a gain of 211.5 per cent. in a decade.

There is no question but this plan brings current history to the nurses while it is current.

It is more impressive to the nurses than it would be a week or two later after it had been worked over for the Outlook, etc.

Furthermore, given to them in these daily installments, that rarely occupy over eight minutes of their time at a happy hour of the day, we believe it is remembered better than it would be if given to them of an evening in a lecture of an hour. By this plan they go to their patients full of these new

ideas and naturally speak of what they have heard, thus leading to conversation mutually beneficial to patients and nurses. In taking their minds from sickness and suffering at meal time it aids digestion and gives the nurses a healthful impetus both mental and physical.

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#### A NEW METHOD OF VACCINATION.

As it is usually done the little operation of vaccination is not satisfactory. When scarification is done with the "point" of a needle, a needless amount of pain is caused. The scratches are apt to be too deep and some, or too much, blood appears. When a cutting edge is used the wound is larger than necessary and often too much blood is drawn. With too much of either blood or serum tedious waiting follows. When large areas are sacrificed, the resulting pustule is much larger than is needed for protection. The crust is apt to be broken and the specific pustule become secondarily infected, with results which are always annoying and may be alarming and serious. Dr. Sigmund Wasserman recommends the use of the scarifier used by von Pirquet in cutaneous tuberculin tests. He claims equal successes in protection, a method which is quicker, less painful and a resulting pustule as free as possible from undesirable features. This is by no means as trifling a matter as it may seem to those who have had limited experience in vaccination of children, and the medical profession owes Dr. Wasserman a vote of thanks.

## LOS ANGELES COUNTY MEDICAL ASSOCIATION.

The meeting on Friday evening, December 2, partook of the character of a welcome home to Drs. Chas. C. Browning, H. H. Lissner, Frank W. Miller, and Albert Soiland. Each of these wanderers gave an interesting account of European hospitals, as he had seen them. The following were recently elected members: Drs. F. W. Kidder, Jas. F. Holleran, W. B. Bowman, and C. W. Cook.

### DIVISION OF FEES.

Whereas, it has been brought to the attention of the Board of Councilors of the Los Angeles County Medical Association that the secret division of fees between the surgeon and the general practitioner referring a patient to the surgeon, has existed and still prevails among some members of this Association, and

Whereas, such secret division of fees tends to place a premium upon the cupidity of the surgeon rather than upon his skill, judgment and ability as an operator, and is subversive of good ethics and the highest consideration of the patient's welfare; therefore be it

Resolved, that the Board of Councilors of this Association expresses its condemnation of any division of fees between a surgeon or specialist and the general practitioner referring the patient, without the full knowledge and understanding of such division by the patient; and to this end the Councilors recommend that the general practitioner referring the patient shall have a larger recognition by the surgeon before the patient, for the ser-

vices which such physician has rendered in making the diagnosis and in his attention to the patient previous to the operation, as well as at the time the operation is performed; and be it further

Resolved, that the Board of Councilors of this Association shall in future consider instances of the secret division of fees between surgeon and physician a sufficient ethical cause for the trial and expulsion of any member of this Association; and be it further

Resolved, that these resolutions be spread upon the minutes and that a copy be sent to each member of this Association, to the Secretary of each County Medical Association in California, and to the Secretary of the Medical Society of the State of California.

ANDREW STEWART LOBINGER,  
Chairman.

STANLEY P. BLACK,  
ALBERT SOILAND.

### INCREASE OF DUES.

It is also proposed to increase the dues to ten dollars per annum in order to begin the accumulation of a building fund. The building idea we think is wise. A lot somewhere in the vicinity of Masonic Temple, corner of Pico and Figueroa streets, would be a good nest egg. Figueroa street will soon be an eighty-foot-wide thoroughfare to the sea.

The Society should also do everything possible to increase the efficiency of the Barlow Medical Library. Miss Weir, the librarian, is glad to be of service to physicians writing papers by getting together promptly data on any given subjects. There



should be a fund though for the purchase of the latest important works. This library already has a comprehensive list of journals on its files, but is short on recent scientific volumes.

The Medical Society might well supply this deficiency by the time of the Los Angeles meeting of the A.M.A.

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### TWENTY-FIVE YEARS OF THE SOUTHERN CALIFORNIA PRACTITIONER.

With this issue the first quarter of a century of the life of the SOUTHERN CALIFORNIA PRACTITIONER is closed.

In all of that time not one single issue has been omitted. It has been a work of love and sacrifice.

For nine years Dr. H. Bert Ellis and Dr. Frank D. Bullard bore the responsibility.

We remember gathering together the copy and the necessary advertisements for the first issue.

Our aim then and now was and is to record the work of the profession of California and Arizona, to collect and publish data in regard to the climatology of this section, to arouse and stimulate the profession toward the highest and noblest endeavors in

the great fields of the prevention and cure of disease, and last but not least to eliminate personal, schismatic and clannish animosities and lead on to a solidarity of all who are laboring for the prevention of disease and the increase of the efficient longevity of man.

We shall continue to earn our daily bread in other walks of life and to use whatever money may come to us from the SOUTHERN CALIFORNIA PRACTITIONER in making it more useful and creditable.

We will not enter into reminiscent details, but with our eyes upon the delectable heights, will cheerfully and hopefully take up the work for the new quarter of a century ready to do our part while we may be granted the necessary mental and physical ability.

While we may show the effects of our immediate associations, yet it has been ever our aim to be absolutely fair to all hospitals and colleges. Where we have not been fair and just it has been through lack of complete information.

We ask every reader to give us his assistance. The SOUTHERN CALIFORNIA PRACTITIONER should be more comprehensive than it is and we earnestly ask your aid.

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## EDITORIAL NOTES

Dr. H. W. Fenner of Tucson has been spending a few days in Los Angeles.

Dr. T. E. Cunnane of Ventura has recently treated successfully a case of tetanus.

Dr. Wm. Brill of Los Angeles has returned from an eight months' trip around the world.

Dr. J. D. Reed of Covina is again at home after taking a post-graduate course in New York.

Dr. W. C. Koebig has located in Beaumont.

Dr. C. F. Whitmer is practicing in Colton.

Dr. H. Leonard Wells, has opened offices in Ventura.

Drs. W. R. Livingston and Allen Peek have formed a partnership in Oxnard.

Dr. M. Letitia Richards of Pasadena has returned from a six months stay in Paris, London and Vienna.

Dr. J. K. McDonnell of Jerome has been offered and accepted the position of Assistant Chief Surgeon to the United Verde Copper Company at that place.

Dr. Albert W. Moore of Los Angeles, is now located in suite 612 Consolidated Realty building, corner Sixth and Hill streets.

Dr. Thos. Chalmers Myers of Los Angeles has returned from a four months' trip in Canada and the United States

Dr. F. C. Zerfing, police surgeon of Los Angeles, has returned from an official trip through the East, inspecting emergency hospitals.

During the year 1908, 17000 persons were injured by street accidents in the City of London and 326 were killed outright. Motor vehicles caused 159 deaths.

Dr. Lewis D. Remington and Mrs. Cassie A. Matthews were married November 16, 1910, and are now at their home, 146 N. Primrose avenue, Monrovia, Cal.

Dr. Geo. O. Hart, formerly U. S. Government Veterinarian has been appointed City Veterinarian and Chief Milk Inspector, by the Los Angeles Board of Health.

Dr. J. B. Clifford of Santa Barbara has been appointed surgeon with the rank of colonel on the staff of Briga-

dier General of the Uniform Rank Knights of Pithias.

Señor Theophile Braga, president of the Portugal Republic, is the son of a Lisbon doctor and was born in the Azores in 1843. He is a noted poet, philosopher and professor of literature.

Dr. Howard B. Gates, formerly of San Jose, is now located in the Consolidated Realty building corner Sixth and Hill streets, Los Angeles. Dr. Gates has returned from an extended trip abroad.

In Louisiana recently a physician and his wife started quarreling over a match. The quarrel grew aspace. They each drew a "gun," the wife was the quicker and shot the doctor—her husband—dead.

Dr. D. F. Royer of Orange died November 7 after undergoing an operation for appendicitis. Dr. Royer graduated from Jefferson Medical College in 1895 and had been practicing in Orange for over twelve years.

Dr. Daniel McSwegan, an old time practitioner of San Diego, is now located at Phoenix, Ariz. He says that he is satisfied that San Diego will prove not only a rival of Los Angeles, but of San Francisco as well.

Dr. Paul M. Carrington of the United States Public Health and Marine Hospital service has been transferred from San Diego, California to Port Townsend, Washington. Dr. B. V. Franklin, Acting Assistant Surgeon, is in charge of the San Diego office.

Dr. F. C. Norman and Miss Vesta Docker of Jerome were married in Prescott on the evening of November 17th. Dr. Norman has severed his connection with the United Verde Copper Company and in the future will devote all his time to private practice in Jerome.

Drs. J. L. Dryer, C. D. Ball, H. S. Gordon and J. M. Berlew, have been

appointed to examine the pupils of the public schools of the city of Santa Ana. They will also instruct the teachers in the art of detecting physical defects.

Dr. John R. Haynes, after an absence of six months abroad, spoke on October 19th before the Civic Club of Los Angeles. His subject was "Some Impressions of Europe, Political and Otherwise." The doctor was listened to with intense interest by a very large audience.

Dr. H. P. Barton, general manager of the Clara Barton Hospital of Los Angeles has returned from the East, where he went to purchase the equipment for the addition to that institution. The cost of the new addition which is in the rear of the main building will be \$60,000.

In New York City the Health Commissioner has adopted a system which consists in the verification of the birth registration of every infant dying under one year of age in order to detect omissions, and strict enforcement of the law, providing a penalty for omission to record a birth in every case that is brought to light.

At the annual meeting of the Yavapai County Medical Society, held in Prescott, November 16th, the following officers were elected for the year 1911: President, W. I. Linn, Prescott; Vice-President, J. K. McDonnell, Jerome; Secretary-Treasurer, C. E. Yount, Prescott; Censor, T. R. Davis, Prescott. This society will hold weekly meetings during the winter, at which the "Post-graduate Course for Medical Societies" will be taken up.

The Los Angeles Express says, "When those 10,000 eastern physicians come here next June to attend the convention of the American Medical Association, they will be able to test for themselves the celebrated brand of climate which they have been prescribing for their patients. And,

incidentally, this will doubtless be a case where many doctors will take their own medicine."

The San Bernardino County Medical Society held a meeting on Wednesday, November 9, at the Loma Linda Sanitarium. They were accompanied by their wives and began the session with a delightful dinner. The evening was devoted to Pellagra. Dr. Hamilton Forline read a paper upon general consideration of the disease, Dr. E. L. Leonard of Los Angeles on the Pathology, Jean Vernier of Loma Linda presented a case.

The Conquest of Consumption, by Woods Hutchinson, published by Houghton Mifflin Company, Boston, price \$1, is a work that the physician can safely recommend to the laity. Of California, he says that it has the sea, sunshine and mountains that made "the glory that was Greece and the grandeur that was Rome." "She will one day become the Greece of the New World." Meanwhile, he says, "if you have never seen California in the winter, you lack important qualifications for imagining what the climate of heaven may be like."

At the annual meeting of the Maricopa County Medical Society, held in Phoenix, the following officers were elected: President, W. I. Simpson, Phoenix; Vice-President, Roy E. Thomas, Phoenix; Secretary-Treasurer, W. Warner Watkins, Phoenix; Censor, O. E. P. Plath, Phoenix. The meeting was held in the dining-room of the Ford Hotel, and an oyster luncheon was served. Dr. Thomas reported a case of pellagra and Dr. Watkins a case of hook-worm disease. The prospects for successful weekly meetings during the winter are very bright.

At the home of Mr. and Mrs. W. S. James, 521 Shatto place, Los Angeles, on November 26th, the Psychopathic Association of California was organized. Judge Curtis D. Wilbur presided



and Drs. H. G. Brainerd, Thos. J. Orison, Ross Moore, Jas. T. Fisher, Chas. L. Allen spoke enthusiastically of the movement. Dr. Brainerd urged that the lunacy law be amended and that the State provide a cottage home in Southern California where the epileptic and feeble-minded can be partly self-supporting. Dr. Fisher and Dr. Moore spoke of the over crowded condition of the State institution at Eldridge, Sonoma County, where the feeble-minded and helpless of the epileptic class are received.

It may interest Americans to know that the oculist of the Holy Father, Pius X, is an Irishman, Mr. Cahill of Dublin, more particularly because Mr. Cahill spent several years of his life in America in the practice of his profession. He went to Rome last week specially to test the sight of the Holy Father, and on Saturday the following cablegram was sent out by Reuter's Agency from the Eternal City:

"The Pope today received his oculist from Dublin, Mr. Patrick Cahill, who tested his Holiness's sight finding that it had scarcely changed since the previous examination, which was made in 1908. Mr. Cahill presented the Sovereign Pontiff with an elaborate barograph registering the rise and fall of the barometer on a clockwork chart, encased in an artistic covering of Irish oak, exquisitely modelled on the Book of Kells. His Holiness was most pleased with the barograph, and warmly thanked Mr. Cahill for his gift, presenting him in return with a gold medal especially struck on the occasion of the reorganization of the Vatican Art Gallery."

We have received a copy of the University of Southern California Bulletin, Vol. V, No. 5. This issue is devoted to the Venice Marine Biological station. This is one of the recently organized departments of the U. S. C. courses given in Biological survey, ex-

perimental Biology, and other research courses.

The following lines of investigation by members of the staff and graduate students are in progress: (1.) The development of the spine of the sting-ray (*Urolophus halleri*). Albert B. Ulrey, A. M. (2.) Regeneration in certain types of Laminariaceae. Andrew C. Life, A. M. (3.) The development of the enamel organ in Selachians. Helen Hawk, A. E. (4.) The role of microorganisms in the wound produced by the sting-ray (*Urolophus halleri*). Chester H. Bowers, A. B. (5.) The morphology and histology of the spines of Selachians. Chas. L. Parmenter, A. B. (6.) An investigation of certain phases of regeneration in animals. Ray E. Carter, A. B. (7.) The cutaneous secretions of the Batoidae. Chas. E. Nixon, A. F. (8.) The morphology and reproduction of types of Phaeophyceae. Frank Fitch, A. B. (9.) The work on the biological survey is carried on by the instructors and assistants of the station and by each of the graduate students of the department of biology of the university. The president, Dr. George F. Bovard, has in this Marine Biological station made a valuable addition to the educational facilities of Southern California.

In an editorial entitled "Human and Bovine Tuberculosis," in the Medical Record, is recounted the research work of Dr. Wm. H. Park of the Research Laboratory of the Department of Health of New York City. The editorial concludes by saying that Dr. Park and his associates have shown that it is possible, by means of simple methods to differentiate the two types of tubercle bacilli. They have confirmed the results of other observers in determining that the danger of human infection from tuberculous cattle are real and that these dangers are greatest in early life, when cows' milk forms the main article of diet.

Azusa, Nov. 12, 1910.

Ed. So. Cal. Practitioner.

Dear Sir:—I had a case recently of a 9½ pound male child, born with an amputated left forearm. Have had a number of children previously, born in my practice, with one arm normal and the other one with rudimentary thumb and finger, but none with a clean stump like in this case. The

elbow joint is normal and a stump about one inch long extends below. It is all covered over with good integument and is a good looking stump except that it is what would be termed "Conical." Thought that perhaps it might be well to report this so that it might be enumerated among such cases in the statistics.

Respectfully, S. A. ELLIS.

## BOOK REVIEWS

**NURSING IN DISEASES OF THE EYE, EAR, NOSE AND THROAT.** By the Committee on Nurses of the Manhattan Eye, Ear, and Throat Hospital, New York City. 12mo volume of 281 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$1.50 net.

The above volume is a valuable addition to the literature of nursing. We can also heartily recommend it to the general practitioner and the medical student. The author especially insists that in operations on the nose and throat blood is usually swallowed which offers the most fertile medium for infection by the numerous bacteria of the intestines, and if not quickly removed will result in undesirable intestinal disturbance. To obviate this a cathartic should be administered the following morning. Castor oil is by far the safest and least irritating. It may be given in sarsaparilla without the least detection of the oil; two ounces for an adult is by no means too much.

**THE PRACTICE OF MEDICINE—A Guide to the Nature, Discrimination and Management of Disease.** By A. O. J. Kelly, M.D., Assistant Professor of Medicine, University of Pennsylvania; Professor of Medicine, University of Vermont. Octavo, 949 pages, illustrated. Cloth, \$4.75 net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

The author has succeeded admirably in his endeavor to make his book a guide for junior practitioners and students. The arrangement of the subjects is logical and much more complete, than in any similar work, as to the tropical diseases which have an increasing interest for medical

men in this country. He recognizes and admits the impossibility of a full consideration of all diseases mentioned, but gives enough details for a diagnosis, and at least one approved method of treatment for each one.

The superior merit of the book lies in the thoroughness and exceptionally good judgment with which treatment of the more important diseases are discussed; for illustration, typhoid fever, pneumonia and tuberculosis. These articles are remarkable for carefulness and completeness of detail and for the breadth of view and sanity, which is a synonym for good judgment. The preliminary chapter in which the sources, pathological physiology and treatment of infectious diseases are discussed is one of great value, and adds much to the practical usefulness of the book.

The demerits of the work are those inseparable from such an undertaking as it is, and its good qualities are such that it is a welcome addition to the treatises on the practice of medicine, and will insure wide popularity.

**THE MEDICAL RECORD VISITING LIST OR PHYSICIAN'S DIARY FOR 1911.** New revised edition. New York. Wm. Wood & Co., medical publishers.

This historic publication keeps apace with the times. The most important change in this edition is in the list of remedies and their maximum doses in both apothecaries and decimal systems.

**ANATOMY, DESCRIPTIVE AND APPLIED.**

By Henry Gray, F.R.S., late lecturer on Anatomy at St. George's Hospital, London. New (18th) edition, thoroughly revised, by Edward Anthony Spitzka, M.D., Professor of Anatomy in the Jefferson Medical College of Philadelphia. Imperial octavo, 1496 pages, with 1208 large and elaborate engravings. Price, with illustrations in colors, cloth, \$6, net; leather, \$7, net. Lea & Febiger, Publishers, Philadelphia and New York, 1910.

The anatomy of young Henry Gray, F.R.S., has been an imperishable masterpiece of his genius. Its original edition and the many succeeding ones have been held in the highest esteem.

During the fifty years of its existence, its editors have been selected from the ablest anatomists and surgeons in Europe and in this country. The last American edition by Da Costa, an anatomist, a teacher and a surgeon of great ability is now replaced by this new eighteenth edition by Edward Anthony Spitzka, professor of general anatomy in the Jefferson Medical College of Philadelphia, and those who are familiar with his Anatomy will know how wise his selection was for this editorship. This seems to be a revision in fact, as well as in name, and a thorough rearrangement has eliminated a number of duplications seen in former editions; this has allowed more matter to be presented in one hundred less pages, a great advantage.

The well-known plan, first inaugurated by Gray, of engraving the name of the parts directly on them has been retained. In this way one learns at once not only the nomenclature but also the position, extent and relations of the parts.

Gray's book was also the first to contain illustrations in colors; these are retained and much revised, many cuts are replaced and many are added. In fact, the use of colors seems very lavish in this edition, and a number of the drawings have been made by Spitzka himself.

A new edition of Gray is always of importance to all concerned in medi-

cine, students, teachers or practitioners.

This edition is peculiarly happy in its method of joining the old and the new nomenclature, its terminology is unusually clear and this to me is one of its strongest points of advantage.

In this single volume one will find a thorough treatise on descriptive and practical anatomy with valuable notes on surgical anatomy combined with a most effective series of illustrations. In conclusion, we repeat the words of another reviewer: "The peculiar clearness of its text, combined with its complete and vivid illustrations, renders Gray the easiest book from which to teach, to learn, or to qualify for collegiate or State license examinations, as well as the most authoritative reference work on the bearings of anatomy in the practice of medicine and surgery."

W. A. E.

**STATE BOARD EXAMINATION.** Questions and answers of forty-one states and two Canadian provinces. A practical work giving authentic questions and authoritative answers that will prove helpful in passing State Board examinations. Reprinted from the Medical Record. Third Edition, revised and greatly enlarged. Price \$3. New York. William Word & Co. 1910.

This is a volume of 819 pages that well serves the purpose for which it is intended and at the same time gives the student of medical education a broad view of present standards.

**INTERNAL SECRETIONS FROM A PHYSIOLOGICAL AND THERAPEUTICAL STAND-POINT.** By Isaac Ott, A.M., M.D., Professor of Physiology in the Medico-Chirurgical College of Philadelphia; Ex-Fellow in Biology, Johns Hopkins University; Consulting Neurologist, Norristown Asylum, Pa.; Ex-President American Neurological Association; Member of Society for Experimental Biology and Medicine, etc. Price \$1. E. D. Vogel, Bookseller, Easton, Pa. 1910.

The contents of this book embodies lectures delivered before the students of the Medico-Chirurgical College.

**HORTON'S PHYSICIANS' PERPETUAL DAILY, WEEKLY AND MONTHLY POKKET RECORD SHEET.** Published by Dr. Alexander F. Horton, 238 Monroe St., Brooklyn, N. Y.



DISEASES OF THE COLON AND THEIR SURGICAL TREATMENT (founded on the Jacksonian essay for 1909). By P. Lockhart Mummery, F.R.C.S., England, B.A., M.B., B.C. Cantab.; Jacksonian prizeman and late Hunterian Professor, Royal College of Surgeons; Senior Assistant Surgeon St. Mark's Hospital for Cancer, Fistula and other diseases of the rectum; and Senior Surgeon to Out-Patients, the Queen's Hospital for Children, London. Illustrated by colored and other plates, and numerous figures in the text, many of which are reproduced from the author's sketches. New York. William Wood and Company. 1910. Net \$3.25

As in most other abdominal conditions it is only comparatively recently that we have acquired fairly accurate knowledge of the pathological conditions that exist in the colon.

Lockhart Mummery gives us this valuable little book, founded upon an essay which was awarded the Jacksonian Prize for 1909 by the Royal College of Surgeons.

The diagnosis of disease in the colon may, and in fact often is, a puzzling problem, therefore, this book has given much attention to diagnosis. Special attention also has been paid to the effect of adhesions, in our experience a most important factor in producing disease within the intestinal tube. Also to chronic constipation and obstruction in its various forms. Constipation is treated by every practitioner of medicine in every part of the world, but there is a startling lack of knowledge, as a rule, of its pathology and, therefore, of its proper treatment. Other important conditions, as colitis, pericolicitis and cancer, have been fully considered.

Mummery states that the ileocaecal sphincter in man is much better developed than in any of the lower animals.

The cat, according to Elliot, has a true sphincter, the constriction fibres coming from the thirteenth dorsal nerve and the first and second lumbar roots. The reviewer was obliged to consult Reighard and Jennings on the anatomy of the cat. Through the courtesy of Dr. Carl C. Warden, this personal communication from Jacob

Reighard was received: "There are about thirty-eight pairs of spinal nerves in the cat. Eight are cervical, thirteen thoracic, seven lumbar and seven or eight caudal; no doubt the dorsal of your medical book is equivalent to thoracic in the above."

A number of the closing chapters are devoted entirely to the operations which may be performed on the colon. There has recently been much dispute as to the value of the colon, and we are glad to read that Mummery thinks that all the evidence brought forward to prove that the colon is a useless and effete portion of the alimentary tract is anything but convincing. Total excision of the colon is certainly compatible with life; but there is not at present sufficient evidence to show whether or not it is consistent with permanent good health.

A note of warning is sounded in regard to X-Ray diagnosis; the results so obtained must not be implicitly relied upon, but used rather as confirmatory evidence. Again we are in accord with this: The only way in which a tube can with certainty be introduced into the colon is by passing it through the sigmoidoscope. It is very doubtful whether a tube can be passed up the bowel for more than six inches once in twenty times, and the so-called high enemas given with a long tube could be just as well administered with an enema nozzle.

There is a very good chapter on congenital abnormalities of the colon, the most interesting being congenital hypertrophy and dilatation.

We see the cases from time to time but find, as a rule, that the diagnosis has been made by the medical attendant.

Mummery seems to have faith that the application of a properly made abdominal belt will restore intra-abdominal pressure in enteroptosis and allow the prolapsed organs to again

function properly. We have not this faith, but we do heartily agree with him that operations which aim at suspension of the prolapsed bowel are unsound in theory and almost invariably fail.

The author has conducted some interesting experiments on intussusception and has made a very good chapter on this condition. So also is the chapter on chronic mucous or membranous colitis, a disease which has only very recently been fully understood.

Space forbids a further review of this interesting little book. It is a distinct addition to our literature of diseases of the colon. W. A. E.

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THE PRACTITIONERS' VISITING LIST FOR 1911. An invaluable pocket-sized book containing memoranda and data for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar for two years. Price by mail, postpaid to any address, \$1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

This has all of its usual excellent qualities and is thoroughly and eminently dependable.

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THE PATHOLOGY OF THE LIVING AND OTHER ESSAYS, by B. G. A. Moynihan, M. S. (London) F. R. C. S., Leeds, Philadelphia and London, W. B. Saunders Company, 1910.

This is a delightful little book made of a number of essays that have appeared from time to time in the medical journals for the last few years. They will assist the surgeon and more particularly the physician to cast aside some obsolete thoughts that have hampered the progress of this work.

It is furthermore an attempt to reconcile the great differences in pathology offered by the surgeons at the operating table and the statistics of the post-mortem room.

The statistics of the lesions found in the latter are a hindrance rather than

a help to the surgeon as they are terminal fatal lesions and his pathology is that of the living. Evidence obtained from the living outweighs that obtained from the post-mortem table many, many times. The literature of medicine has been too much concerned with terminal events and these essays show us that not alone is a new pathology learned during abdominal operations but new clinical manifestations can be associated with the early structural changes.

Moynihan's forceful mind has shown us that it is necessary to devote the closest inquiry to the earliest disturbances of health in order that purposeful medical treatment may be applied to a known condition and when surgical treatment is indicated it may then be applied at an earlier and safer stage.

The tremendous increase in abdominal operations in the last few years has born fruit in that the organic diseases affecting the abdominal viscera are now being recognized in earlier and more hopeful stages and fortunately too they are coming to receive proper interpretation.

Functional diseases are passing away in the abdomen; the surgeons have taught that in the main they are dependent upon structural changes that can be demonstrated.

Moynihan believes, and what competent observer does not agree with him, that time will show that possibly all, certainly nearly all, of the cases of protracted and recurring "dyspepsia" are due not to vices of secretions, though these may be present, but to organic changes in one or others of the viscera.

"It has been as though one should attempt to discover the place and nature of a foreign body in the eye by an examination of the tears that flow so freely." Could there be a better commentary on the pages and pages that have been written upon the

changes both in quantity and quality of gastric secretions?

This is altogether the most delightful little book that has come to me in many a long day. The style is so pleasing, the English is so good and forceful that its reading is a recreation that I advise every surgeon to indulge in, and then when he is bored with stress and worry read it again and feel the uplift of the master's touch. WILLIAM A. EDWARDS.

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THE PHYSICIAN'S POCKET ACCOUNT BOOK, by J. J. Taylor, M.D. 212 pages. Leather. Price \$1 postpaid. J. J. Taylor, Publisher, 4105 Walnut Street, Philadelphia, Pa.

The especial feature of this book is a system of accounts whereby each transaction can be recorded in a moment's time in plain language, so that it is strictly legal as evidence in court without personal explanation, and so arranged that any patron's account can be ascertained on demand without any posting.

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DYSPEPSIA—ITS VARIETIES AND TREATMENT. By W. Soltan Fenwick, M.D. London. 485 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1910. Cloth, \$3 net. For sale by Fowler Brothers, Los Angeles.

The almost universal conception of dyspepsia is that the condition is due to some substantive disease dependent upon a primary failure of the gastric functions.

We are not aware of any book in the English language that so effectively corrects this misconception or one which so properly emphasizes that in a large proportion of cases, the symptoms of dyspepsia result from the failure of some other and perhaps remotely situated organ of the body, to execute its proper functions.

The volume is divided into ten chapters and an enumeration of the headings will best give an idea of the scope of the work: the varieties of dyspepsia and their differential diagnosis; dyspepsia due to abnormalities

of secretion; dyspepsia due to failure of the muscular power of the stomach; dyspepsia due to disturbances of the nervous mechanism of the stomach; dyspepsia due to inflammations of the stomach; dyspepsia due to displacements of the stomach; dyspepsia due to the presence of foreign bodies and living creatures in the stomach; dyspepsia in infancy and old age; dyspepsia dependent upon diseases of other organs; intestinal indigestion.

A rather exhaustive bibliography and a complete index complete the volume. DUDLEY FULTON.

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MANUAL OF CLINICAL PATHOLOGY, for the general medical practitioner, comprising the examination of Urine, Stomach Contents, Faeces, Blood and the Serum Diagnosis of Syphilis, Tuberculosis, Typhoid Fever, etc. By Richard Weiss, M.A., Ph.D., F.C.S., in collaboration with George Herschell, M.D., London, Andrew Charles, F.R.C.S., Dublin. Price 2/- net. London. J. & A. Churchill, 7 Great Marlborough Street. 1910.

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W. B. SAUNDERS COMPANY now have going through their presses a three volume work on Practical Treatment, written by international authorities and edited by those able clinicians, Dr. John H. Musser and Dr. A. O. J. Kelly, both of the University of Pennsylvania.

In looking over the list of contributors we can come to but one conclusion, namely: that this work will undoubtedly take rank as one of the very best on treatment extant. The names of the authors carry with them the positive assurance of thoroughness. Indeed, each chapter is a complete monograph, presenting the most recent therapeutic measures in a really practical way.

As the general practitioner is required to know certain therapeutic measures more or less of a surgical nature, leading surgeons have been selected to present such subjects. This is an important feature, and, to our knowledge, not included in any similar work.

The work will sell for \$6 per volume, in sets only.



**THE PREVENTION AND TREATMENT OF ABORTION.** By Frederick J. Tussig, A.B., M.D., lecturer in Gynecology, Medical Department, Washington University; obstetrician to the St. Louis Maternity Hospital; gynecologist to the St. Louis Skin and Cancer Hospital; Fellow of the American Gynecological Society, and American Association of Anatomists. Fifty-nine illustrations. Price \$2. St. Louis: C. V. Mosby Company. 1910.

This book is in the main written for the general practitioner, as he is the one who usually treats the case, therefore, careful instructions are given as to the methods of preventing abortions.

The operative indications and operative technique are also gone into somewhat at length.

The subject is a very important one as abortions and miscarriages compose a very considerable percentage of all pregnancies—some say as high as one in five, and the mortality after abortion is higher than after confinement. All gynecologists know what a

large proportion of their patients date the onset of their trouble to a mismanaged abortion. The book is well illustrated, carefully printed on very good paper, and withal it is published at the very moderate price of two dollars.

For those general practitioners interested in the subject, particularly younger men and those away from the large medical centers, the book will prove a very acceptable guide.

W. A. E.

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**THE LETTERS OF DR. BETTERMAN.** By Charles Elton Blanchard, M.D. Published by J. D. Albright, M.D., Philadelphia, 1910. Price 75 cents.

The author, who graduated from the College of Physicians and Surgeons of Cleveland in 1902, writes here a quaint lot of letters full of homely advice that have the soap, beeswax and bacon flavor of the country store.

## THERAPEUTICAL HINTS

**When Suspicious Examine the Urine.**—Of all body excretions the urine offers the best index of threatening maladies and pathological changes. For this reason a little brochure just issued by the New York Pharmaceutical Company, of Bedford Springs, Bedford, Mass., is not only timely but useful, and from its arrangements, extremely practical. Besides presenting working tests for the detection of albumen, sugar, phosphates, uric acid, etc., their significance when found is clearly set forth. The few moments spent in reading this booklet will be time well devoted. Send for a copy.

Tubercular processes generally seize the favorable opportunity of reduced resistance following a pneumonia or other acute lung disease, to fasten themselves on the patient. In these instances the value of preven-

tion is inestimable. It lies in so charging the tissues with added powers of resistance that tubercular infection is successfully combatted. Not alone by good feeding and right living is this done. The requisite is the selection of a suitable tissue food, a food that is taken up quickly and that adds tone and strength to tissues. Cord. Ext. 01. Morrhuæ Comp. (Hagee) for this purpose is not approached. It contains in easily assimilated form the very nutritious elements urgently needed by the depleted tissues to enhance their powers of resistance and give them strength "to throw back the invading host."

Pope said, "The learn'd reflect on what before they knew."

As the winter approaches, conditions prevalent with the season will present themselves for the consideration of the physician.

At this time it might be well to recall that Antiphlogistine, applied thick and hot, will offer unmeasurable relief in those cases of bronchitis, tonsillitis, laryngitis, pleurisy and other throat and chest affections you will be called upon to treat.

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Prescott, Yavapai Co., Arizona,  
Nov. 21, 1910.

Dr. Walter Lindley,  
1414 South Hope St.,  
Los Angeles, California.

Dear Doctor:

The management of Pamsetgaaf wishes to announce that in the future this institution will be conducted strictly as a sanatorium for the treatment of cases of pulmonary and laryngeal tuberculosis, which offer a reasonable prospect of arrest or cure. As in the past, this institution will be conducted along the most conservative lines. Chief dependence is placed upon rest, fresh air and good food, well cooked and nicely served. Tu-

berculin is not administered as a routine treatment.

It gives the management considerable pleasure to be able to announce that it has been so fortunate as to secure the services, as consulting physician to Pamsetgaaf, of Major Charles Norton Barney, Medical Corps, United States Army (retired) who spent the last four years on active duty at the United States Army Sanatorium at Fort Bayard, New Mexico.

Major Barney will examine all patients upon their admission to Pamsetgaaf and will suggest the details of their treatment. He will assist at the routine monthly examination of each patient, and with the medical director will carefully follow the treatment in each case.

If you would care to have further information regarding this sanatorium we shall be very glad to supply it at any time.

Yours very truly,  
M. B. FLINN,  
Manager.

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## CALIFORNIA HOSPITAL ALUMNAE NOTES

The monthly meeting of the California Hospital Alumnae was held at 1103 West Eighth street. Officers were nominated for the coming year, and will be voted upon at the next meeting.

The announcement has been made of the marriage of Miss Gertrude Hammond ('04) and Dr. H. Cameron May of this city.

Miss Waller, superintendent of the Bard Hospital, Ventura, Cal., is spending her vacation at one of the local beach towns.

Miss Cassarina is doing private nursing in Tucson, Arizona.

Miss Eva Johnson is visiting at her home town, Marietta, Ohio.

Miss Cora Fenn and Mrs. Ensign have gone to Kansas City, where they expect to remain for the winter.

Miss Nichols ('08) has accepted the position as assistant superintendent of the California Hospital.

Miss Metcalf has enjoyed her two weeks' vacation at Long Beach.

Miss Bessac is nursing her sister in Fresno, Calif.

Mrs. Durbin has returned to the city and resumed her duties at private nursing. We are all glad to know that she has made such a speedy recovery.

Miss Barbour likes private nursing in Hermosillo, Mexico, and will stay there for an indefinite time.

# QUESTIONS CALIFORNIA STATE BOARD OF MEDICAL EXAMINERS, LOS ANGELES, DECEMBER 6-9, 1910.

## BACTERIOLOGY.

Answer 10 Questions Only.

1. Explain in detail how you would distinguish Tubercle bacilli from other acid fast bacilli.
2. Explain in detail how you would diagnose between Aestivo-atumnal Fever and a general Streptococci infection.
3. How would you determine the character of a Venereal sore, bacteriologically?
4. What causes Glanders, Influenza, Relapsing Fever, Malta Fever, Sleeping Sickness?
5. How are Bacteria destroyed in the living body?
6. Explain the difference in action of Antitoxins and Bacterial vaccines.
7. Describe the Bacillus Tetani. How does the Bacillus Tetani cause Lockjaw?
8. How would you obtain a culture of Bacillus Tetani?
9. What causes Favus, Ringworm, Thrush, Tinea Versicolor, Dysentery?
10. Describe briefly the life cycle of the cause of Malaria.  
December, 1910.

## OBSTETRICS.

Answer 10 Questions Only.

1. In the average composition of mother's milk, what is the per cent of the following: Proteids, Fats, Sugar, Salts.
2. Give the proper formula for preparation of cow's milk to take the place of mother's milk in the new born?
3. What are the dangers of prolapse of the cord and how would you proceed in such a case?
4. How many vertex presentations are there? Name them.
5. Describe tetanic contractions of the uterus during labor and what are the dangers?
6. Give the mechanism of labor in the left occipitoiliac anterior presentation.
7. What do you understand by puerperal psychosis?
8. Describe distocia due to abnormalities in development or presentation of foetus?
9. In application of the forceps what do you understand by the following: (a) Low forceps. (b) High forceps.
10. How many pelvic osteomalacia complicate labor?
11. Give the aetiology and description of cyanosis neonatorum?
12. What puerperal conditions call for uterine curettage and what conditions counter-indicate this operation?  
December, 1910.

## HYGIENE.

Answer 10 Questions Only.

1. What method would you employ in controlling an epidemic of small-pox?
2. Give the usual length of quarantine for the following diseases: Diphtheria, scarlet fever, small-pox, plague.
3. Discuss three efficient methods of fumigation for a room of 10,000 cu. ft.
4. Discuss the value of the three most commonly used germicides.
5. Discuss a rational method for the eradication of hydrophobia from a municipality.
6. Outline in detail all the methods of infection in bubonic plague. Give the clinical varieties of the disease and tell which variety shows the greatest mortality.
7. Outline a rational method for the inspection of public schools. What contagious diseases should prohibit a child from attendance? Name at least eight.

8. Describe Pasteurization of milk. What is the effect of pasteurization upon milk.
9. What methods are most efficient for the purification of city water? What diseases may be transmitted by water?
10. What changes may take place in food kept in cold storage? What length of time should be considered prohibitive for such foods?
11. Outline in detail two tests for sewage in drinking water.
12. What kinds of food may develop Ptomaines and under what conditions?  
December, 1910.

## CHEMISTRY.

Answer 10 Questions Only.

1. Complete the following equations:  
TABLE

2. Name three elements and three compounds in the potassium group with their symbols and atomic weights.
3. Give the chemical formula and derivation of acetic acid. Mention the most important acetates.
4. State of the two chlorides of mercury: (a) their names, (b) chemical formulas, (c) composition, (d) solubility, (e) color and other properties.
5. Discuss acidosis.
6. Give an outline for the tests to be made when the gastric juice is examined.
7. Under what conditions will the Fehling's and Trommer's tests fail to show the presence of sugar in urine?
8. Why is the reaction of the blood alkaline?
9. Which would be the most dangerous poisonous dose of Arsenic, a small or a large dose? Explain.
10. Mention two substances which poison by being inhaled. Name two narcotic poisons.
11. What emergency treatment should be employed for poisoning by Formaldehyde? By swallowing Chloroform?
12. What should be done in poisoning when the nature of the poison is unknown? (a) By what may the effects of a poison be modified?  
December, 1910.

## GENERAL DIAGNOSIS.

Answer 10 Questions Only.

1. What are the symptoms and physical signs of incipient Phthisis?
2. What is the normal temperature of the body and describe the temperature curve in (a) Typhoid Fever, (b) Croupous Pneumonia, (c) Sepsis, (d) Tertian Malaria.
3. Describe an attack of lobar pneumonia.
4. Upon what symptoms would you base a diagnosis of haemorrhagic pancreatitis?
5. Differentiate Acute Alcoholism from Cerebral Haemorrhage.
6. Discuss briefly the diagnosis of Epidemic Poliomyelitis.
7. Give the diagnosis of Vertebral Tuberculosis.
8. What are the complications which are liable to occur during an attack of Gonorrhoeal Urethritis?
9. Describe an attack of Psoriasis.
10. How is the vocal fremitus elicited? When is it increased? When is it diminished or absent?
11. Describe the symptoms and sequelae of Peptic Ulcer.
12. Define: Paranoia? Hemetemesis? Arrhythmia? Tetany? Ophthalmia Neonatorum?  
December, 1910.



## HISTOLOGY.

Answer 8 Questions Only.

1. Describe the histological peculiarities of a pulmonary alveolus.
2. What histological features would enable you to distinguish a section from the cardiac end of the stomach, from one taken from the pyloric region?
3. How do voluntary muscle fibres differ structurally from involuntary muscle fibres?
4. Describe the Epithelial lining of the pelvis of the kidney. Make drawing.
5. What is spermatogenesis and how does it differ from karokinesis.
6. (a) What structural peculiarities distinguish a mucous from a serous salivary gland? (b) Name a gland characteristic of each class.
7. Describe briefly a neurone found mostly in the spinal ganglia. Make drawing.
8. (a) Name a structure found only in the kidney. Make drawing.  
(b) In the spleen. Make drawing.  
(c) In the thymus gland. Make drawing.  
(d) In the testicle. Make drawing.
9. Draw a transverse section of a portion of the intestinal tract that has no villi—showing direction of section of various muscular layers—name portion from which section was taken.
10. How would you distinguish a transverse section of the fallopian tube from a similar section from the appendix. Make drawing.
11. Identify slides.
12. Identify slides.  
December, 1910.

## PATHOLOGY.

Answer 8 Questions Only.

1. Describe the changes which take place in tissue during suppuration and describe the difference between pus corpuscles and white blood corpuscles.
2. Give the most common causes of paresis; its probable uration; and describe the resulting pathologic changes in the brain and cord.
3. Explain what is meant by secondary or Wallerian degeneration of nervous tissue.
4. Describe the changes in the eye caused by Trachema; give cause and probable duration and the condition more or less permanent likely to result; and what class of immigrants are most likely to bring it to California?
5. Describe the changes in the lung during an attack of pneumonia as a result of *Streptococcus* infection.
6. Describe the changes which take place during an attack of septic endocarditis and what valves are most likely to be involved and permanently impaired?
7. Describe the morbid condition responsible for the production of indol and indican in the system.
8. Describe the changes formed in the greatly enlarged spleen frequently found in cases of chronic malarial infection and the reasons for the same.
9. Describe pathologic changes resulting from Beri-beri; its cause, duration, and from what countries is it most likely to be imported?
10. Describe the changes resulting from the inhalation of CO and the reasons for the same.
11. Identify two slides.
12. Identify two slides.  
December, 1910.

## ANATOMY.

Answer 10 Questions Only.

1. Describe the Planter Fascia.
2. Describe the mammary and accessory mammary lymphatic vessels.

3. Describe the characteristics of an intercostal space.
4. What are the boundaries and contents of the mediastinum?
5. Indicate, on diagram, the situation of the valves of the heart in reference to the anterior chest wall.
6. What nerves form the brachial plexus?
7. What is the origin, course and distribution of the anterior crural nerve? Use diagram.
8. Give position and blood supply of the thyroid gland.
9. Indicate, on diagram, the position of the stomach with reference to anterior surface of the body.
10. What structures constitute the spermatic cord?
11. Describe the spinal canal.
12. What are the physiologic curves of the spine and what produces them?  
December, 1910.

## PHYSIOLOGY.

Answer 10 Questions Only.

1. What is the role of the thyroid gland?
2. What are the nutritive relations of the nerve fibre and nerve cell?
3. What effects do various normal conditions have on the extent of the knee-jerk?
4. What general diagnostic significance is credited to the presence, increase or absence of tendon reflexes?
5. What clinical evidence is there that the spinal paths for pain, touch and temperature are separate?
6. What are the functions of the leucocytes?
7. What factors, besides the heart, aid the movement of the blood?
8. What is a sphygmogram and what general value may it have?
9. Describe a cardiac cycle.
10. What is the myogenic theory of the heart beat?
11. What is the physical theory of respiration?
12. Describe the specificity of enzymes.  
To what extent does the stomach show power of absorption?  
Is the putrefactive process in the gastrointestinal canal of physiological importance?  
December, 1910.

## GYNECOLOGY.

Answer 10 Questions Only.

1. Abdominal section, indications, and contra indications.
2. Preparation for abdominal section. Brief explanation of regular steps, and special procedures.
3. After management of abdominal section, 1st, 2nd, 3rd, 4th days and subsequent orders.
4. Pelvic tuberculosis, what organs are involved, symptoms, diagnosis.
5. Methods of examination of female reproductive organs, for diagnosis.
6. Postural methods, and uses, indications.
7. Ulcers of the vulva. Simple, Chancroid, Syphilitic, Tubercular, Malignant, diagnosis.
8. Pelvic abscess, organs and tissues involved, etiology, diagnosis.
9. What are the ordinary disturbances of menstruation met by the general practitioner; significance?
10. Curetment of the uterus, indications, how performed, dangers.
11. Conservative surgery of the tubes and ovaries, what are the advantages and disadvantages?
12. Inflammation diseases of the vulva (non-specific).  
December, 1910.

# DIET IN TYPHOID FEVER.

A comparatively easy task for one who has inclination and time for searching the literature of the subject, would be to show that the most conspicuous failing among at least modern medical men has been the lack of plain, common sense—which is another name for good judgment—in the actual practice of medicine. Among the diseases in which doctors have sinned most in this respect, pneumonia, typhoid fever and tuberculosis may be mentioned. Just now typhoid fever is monopolizing journalistic attention. This movement started with an article in *The American Journal of Medical Science*, January 1910, by Harris A. Houghton, which is ably analyzed in the department of *Therapeutics* in *The Journal of the A. M. A.*, October 15, 1910.

The fortunate physicians of Southern California have sinned less in this line than some of their confreres—perhaps because of fewer opportunities, but any one whose memory or experience includes hundreds of cases can remember among them those tormented by tympanities, constipation or diarrhoea, and how persevering and manifold were the methods resorted to to diminish those unnecessary evils, which did not include a modification or entire cutting out of the fetish “the milk diet.” There is abundant evidence that this agitation for a modification of the diet in typhoid cases is needed, and perhaps no single instance is more convincing than the following statements in Edwards’ *Principles and Practice of Medicine*, 1909: “Very few patients cannot take milk. In other words, it can be forced upon unwilling patients.”

If that statement is made by a man of such very large experience and of such unusual ability, what must be the need of dietetic wisdom on the part of the rank and file of doctors! The tendency of physicians in actual practice

# Svapnia

**Purified Opium  
With a Fixed  
Morphine Standard**

SVAPNIA possesses the following advantages over ordinary opium:

Freedom from mechanical impurities; elimination of undesirable alkaloids; definite morphine content (10 per cent); lessened tendency to nausea and vomiting; increased palatability; uniform results.

The adult dose of Svapnia (1 to 2 gr.), as well as the indications for its use, are the same as opium. It is in the form of red-brown scales, soluble in water with turbidity, and is best administered in capsules, pills or powder form.

Sold by druggists generally.

**THE CHARLES N. CRITTENTON CO.**

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*Sample and literature on application.*

to follow established methods is fundamental and perhaps, generally, unavoidable, but it is none the less unfortunate in so far as it tends to obstruct progress, perpetuate errors and to cultivate narrow views in practice.

Dr. Houghton’s article cannot be praised too highly, and *The Journal* is to be commended for an analysis so complete and so able as that in the number mentioned. Either one will be found to be excellent reading even for those who rarely or even never treat cases of typhoid fever.

E. W.

## PULMONARY HEMORRHAGE IN TUBERCULOSIS AT HIGH AL- TITUDE.

In a reprint on the above subject in report number 51 of Public Health and Marine Hospital Service, F. C. Smith,

**Do  
YOU  
Know**



**“the perfect lubricant” for  
catheters, sounds, specula  
and digital examinations?**

**If not, postal request (mentioning  
SOUTHERN CALIFORNIA PRACTITIONER )  
will bring you a trial tube FREE.**

**VAN HORN & SAWTELL**  
NEW YORK and LONDON, ENG.

past assistant surgeon gives a review of the clinical records of the Marine Hospital Sanatorium of Fort Stanton, N. M. This sanatorium is at an altitude of 6200 feet—1000 feet higher than Idyllwild. The article concludes as follows:

It has been scientifically established that blood pressure is lowered with increase of altitude, and while elevated places have never been considered unsuitable for the treatment of cases of pulmonary tuberculosis showing hemorrhagic tendencies, a note as to the comparative frequency of hemorrhages from the lung at this sanatorium may properly be added here. Our altitude is 6231 feet; most patients arrive from places at or near sea level.

Of the first 453 hemorrhagic cases admitted, 248 had hemorrhages before but not after admission; 106 had hem-

orrhages both before and after admission; 99 had hemorrhages after but not before admission.

Such data are obviously not of much value without knowing how long the patients were under observation.

Of 248 having hemorrhages before but not after admission, 31 remained over two years, 46 remained from one to two years, 45 remained from six months to one year, 61 remained from three to six months, and 65 remained less than three months.

This still is not conclusive, because the duration of the disease before entering was probably greater in most cases than the time patients remained under treatment here, with consequent greater opportunity for hemorrhage before than after admission. But taking into account the well-known frequency of recurrence in pulmonary hemorrhage, the belief that elevated regions are favorable for the treatment of ordinary hemorrhagic cases of tuberculosis of the lungs would seem fairly well supported.

#### SUMMARY.

(1.) Hemorrhage from the lungs is responsible for about ten per cent of the total mortality from pulmonary tuberculosis at this sanatorium.

(2.) Syphilis and chronic alcoholism increase the liability to fatal hemorrhage.

(3.) Small pulmonary hemorrhages are rarely suddenly fatal, but may cause a dangerous insufflation pneumonia.

(4.) Recurrence of hemorrhage rarely or never occurs after broncho-pneumonia develops.

(5.) No age period of adult manhood seems especially predisposed to fatal pulmonary hemorrhage.

(6.) Exciting cause of fatal hemorrhage was noticeably absent; the majority of subjects were in bed at the time and a large number presumably asleep.

(7.) Acute types of pulmonary tuberculosis are least liable to this acci-



“professional confidence is the greatest asset of any manufacturer, especially so when this assurance is based solely upon the therapeutic reliability of his product.

Actual clinical demonstration is the only logical and convincing method of determining the therapeutic value of a remedy, and by results thus manifested, antiphlogistine acquired, and has retained professional confidence as a reliable and trustworthy dressing in the treatment of all inflammatory conditions whether deep or superficial.

In the treatment of Tonsillitis, Bronchitis, Quinsy, Pleuritis and other throat and chest affections, antiphlogistine applied thick and hot stimulates capillary and arterial circulation, thus relieving inflammation, congestion and pain, thereby affording prompt and positive relief.”

dent; negroes showed a lower mortality from hemorrhage than whites.

(8.) Hemorrhage has not been common immediately after arrival from sea level; the increased mortality from hemorrhage after prolonged residence at high altitude may properly be ascribed to the chronic type of disease in these individuals.

(9.) Diseases of the heart or embarrassed circulation from any cause predispose to a fatal issue when pulmonary hemorrhage occurs.

(10.) Pulmonary hemorrhage is not more frequent at high altitude than at sea level but the results are perhaps more often serious, especially in those with impaired circulation.

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Recently we were surprised to read the statement that it is only about ten years since the public announcement of the discovery that the disease of consumption could be cured by living night and day in the open air. Our surprise is not at the announcement but that any one would make such a statement. Dr. Benjamin Rush, Washington's physician, made this cure well known one hundred years ago. A work on physiology, published in Boston some seventy years ago, emphasized it. About the same time a prominent physician of London, at the head of a hospital, taught it and cured many cases, and there is reason to believe that Hippocrates, the father of

medicine, relied upon it. Dr. Farr, in England, just seventy years ago, addressed a letter to the Registrar General of England and set forth that indoor life was one of the chief causes of consumption.

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#### MUFFLED ROOMS.

Dr. Sanger Brown says that in order to prevent the actions of one patient disturbing patients in adjacent rooms he has had several layers of Cabot's sheeting quilt placed in the partitions in the floors and ceilings, and had double doors and windows put in, and then placed a fan in the outlet flue (each room in the house has an independent inlet and outlet flue for ventilation) to provide for forced ventilation, and this later provision has been entirely satisfactory. I found, however, that while by this device the manner and the degree of muffling was considerable, it was far from what one would desire in certain instances. I have further thickened the walls in some of the rooms in various ways; that which has proved most satisfactory has been to line the walls and ceilings with tiling such as is used in partitions for fire-proof building. The matter of muffling could certainly be very well worked out by practical experiment. Indeed, this may already have been done, but if it has, I am ignorant of the methods employed. —[Journal A.M.A.]

## Horlick's Malted Milk

The Original and Genuine

Many physicians are as particular in selecting a food for their patients as they are in the use of pure, standardized drugs. For instance, whenever prescribing Malted Milk, they invariably specify "Horlick's," because it's worth has been proven by many years of clinical tests. Pure milk in a form so palatable, and digestible, that it is used with convincing results in Typhoid, in Gastro-Intestinal diseases, in Convalescence, as well as in the feeding of infants and delicate children.

That your patients may obtain the best as well as the original and genuine, always specify "Horlick's."

Samples sent, free and prepaid, to the profession, upon request.

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